

# **TOSHIBA**

## **SERVICE MANUAL**

### **VIDEO CASSETTE RECORDER**

***V-729B, V-709B, V-429B***

***V-229B, V-219B, V-209UK***

***V-729EG, V-719EG, V-429EG***

***V-229EG, V-219EG, V-209EG***

***V-729F, V-609F, V-429F***

***V-419F, V-229F, V-219F***

***V-729W, V-429W, V-209W***

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# 1. Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including : control knobs and compartment covers.
3. Make sure that there are no cabinet openings through which people--particularly children --might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (See Fig. 1-1) :  
Warning : Do not use an isolation transformer during this test. Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (UL Publication UL1410, 59.7).

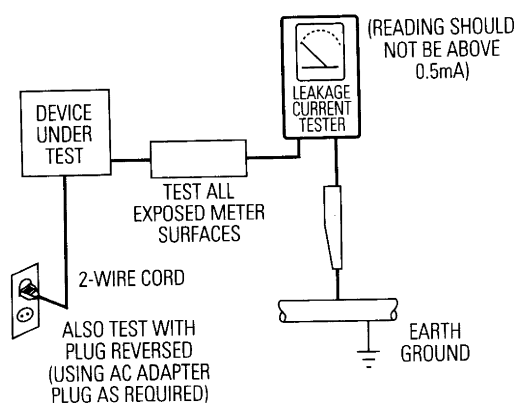


Fig. 1-1 AC Leakage Test

5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including : antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.
6. Antenna Cold Check :  
With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.
7. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
8. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging Wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)
9. Design Alteration Warning :  
Never alter or add to the mechanical or electrical design of this unit. Example : Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.
10. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

11. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.
12. Observe the original lead dress, especially near the following areas : Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.
13. Product Safety Notice :  
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

Components that are critical for safety are indicated in the circuit diagram by shading, ( ⚠ or ⚡ ).

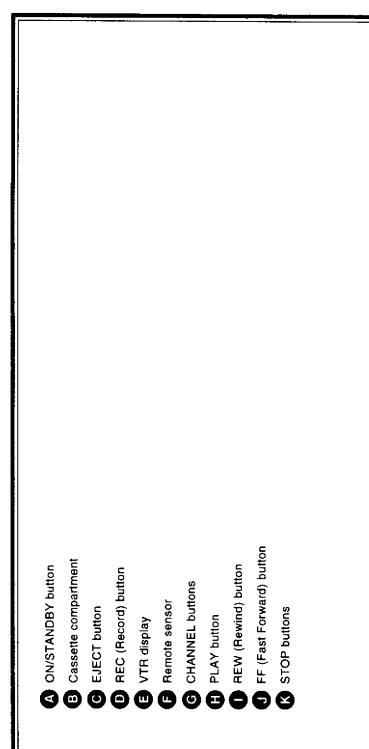
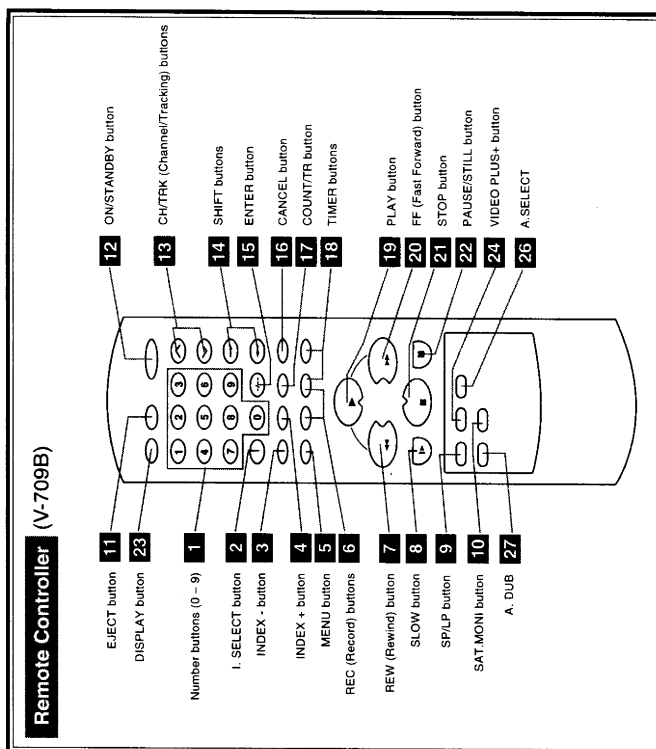
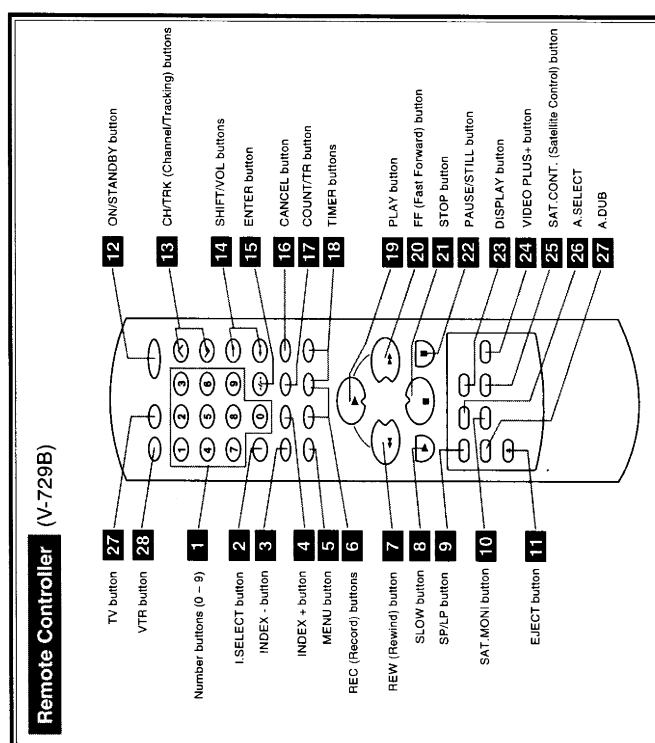
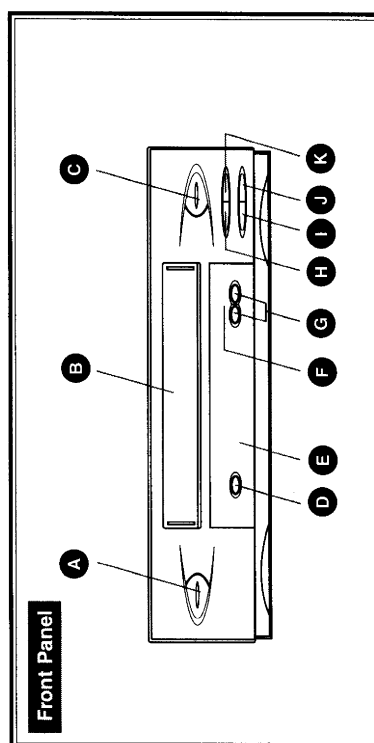
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.



## 2. Reference Information

### 2-1 Operation of Controls

#### 1 INTRODUCTION IDENTIFICATION OF CONTROLS



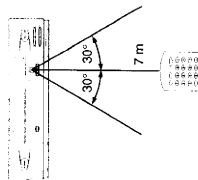
# INTRODUCTION

## HOW TO USE THE REMOTE CONTROLLER

This section explains how to get ready for remote controller operation.

### Setting up the Remote Controller

- 1 Open the battery compartment lid on the rear panel.
- 2 Install 2 batteries (R03 size) following the polarity diagrams.
- 3 Close the battery compartment lid.
- 4 Point the remote controller at the VTR and press the buttons within the operating range as illustrated.  
Distance: within about 7 m from the front of the remote sensor  
Angles: within about 30° in every direction



### TOSHIBA TVs Control (V-729B Only)

The remote controller can control TOSHIBA TVs.

Press the TV button to set the remote controller operating your TV.

Point the remote controller at your TOSHIBA TV and use each button listed below to make sure that the TV is operated correctly.

ON/STANDBY	To turn the TV on or off.	12
CH	To select TV channels in the upper or lower direction.	13
VOL (Volume)	To adjust the sound level.	14
INPUT SELECT	To select an external source such as a VTR.	2
Number buttons/ENTER button	To select TV channels. Way of use may differ with models of TV. Check how they work on your TV. Ex. To select channel 3: • 0→3 • CH→ENTER • ENTER→3 To select channel 16: • 1→6 • 1→6→ENTER • ENTER→ENTER→1→6	1-15

### Important

Some TVs may not respond to all the operations above, or may not be operated at all with this remote controller. In this case, operate your TV with its own remote controller.

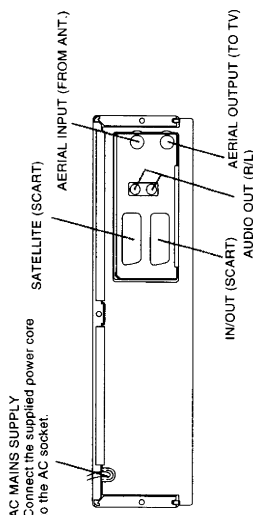
### Notes on Batteries

- The life of the batteries is about 1 year depending on the conditions of use.
- If the remote controller does not operate correctly, replace all batteries with new ones.
- Do not dispose of the batteries by fire.
- If the remote controller is not to be used for a long period of time, remove the batteries to avoid possible damage from battery corrosion.

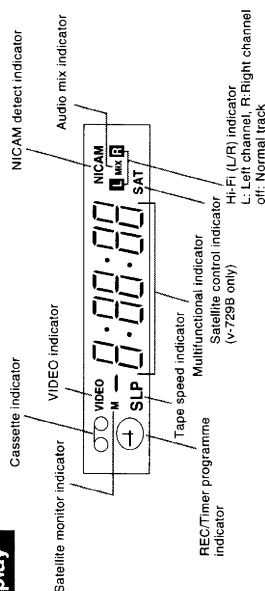
### Caring for the Remote Controller

- When using the remote controller, press the buttons at intervals of about 1 second to ensure the correct mode of operation.
- Keep the remote controller away from extremely hot or humid places and avoid sharp impacts.
- Do not expose the remote sensor of the VTR to a strong light source such as direct sunlight or illumination.
- Be careful not to spill water on the remote controller or to place it on anything wet.

### Rear Panel



### VTR Display





## AUTO SET UP

### CHECKING AUTO SET UP / CHANNEL SWAPPING

This section explains how to check if the TV stations are stored on the VTR correctly. If they are not stored correctly, you must enter them manually. (See page 37.)

#### Checking Auto Set Up

Using the **CHTRK** buttons on the VTR's remote controller, check that the order of the TV stations stored on the VTR is as below. (This is important for the correct functioning of VIDEO Plus+ Deluxe.)

Position number	TV station
1	BBC1
2	BBC2
3	ITV
4	CHANNEL 4
5	CHANNEL 5
6	Satellite receiver

Position number 6 is reserved for a satellite receiver connected with an aerial cable. This position will be empty if there is no satellite receiver connected.

Any other stations are stored from position number 7 onward. If one of these has a better picture or is your preferred regional station, (e.g. Carlton instead of Meridian) then you can swap this into another position number. See the procedure below.

#### Channel Swapping

This VTR can move a TV station stored by Auto Set Up to another position number. This is called "Channel Swapping".



To move a TV station stored on position number 7 to position number 3.

- 1 Select position number 7 with the **CHTRK** buttons.
- 2 Press the **MENU** button.  
The MAIN MENU screen appears.
- 3 Press number button 3 to select "INSTALLATION".
- 4 Press number button 2 to select "MANUAL SET UP".
- 5 Press number button 1.  
The following text will be superimposed over the position number you selected.
- 6 Press number button 0 and 3 to select a new position number, then press the **SHIFT** button.
- 7 To select another stored station to move, press the **CHTRK** buttons and follow step 6.
- 8 Press the **MENU** button.  
Now Channel Swapping is complete. Further press the **MENU** button three times to return to the normal TV screen.

## BASIC OPERATION

### ON SCREEN DISPLAY / VIDEO CASSETTE USE

This is basic information for the playback operation.

#### Displays and Indicators on the Screen

Pressing the **DISPLAY** button makes the operating mode appear. If you press this button again, the indication goes off, leaving the counter indication on the screen. To turn it off, press the **DISPLAY** button once more.



The indicator varies with the operating mode.

Ejecting a tape	▲
Stop	■
Fast-forwarding Forward picture search	▶▶
Rewinding Reverse picture search	◀◀
Recording	●
Recording pause	
Playback	▶
Still picture Frame advance	
Slow playback	▶▶

**Note**  
In addition to the indication above, the VTR may display other indicators such as index search. See respective pages for each explanation.

#### Video Cassette Use

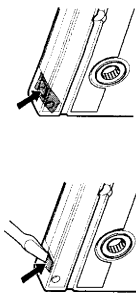
- Loading a Cassette**  
Push the cassette into the cassette compartment with the window side facing up and the label side towards the front. The VTR is automatically turned on. The **CTD** indicator will appear in the VTR display.
- Ejecting a Cassette**  
Press the **EJECT** button. The cassette is ejected from the cassette compartment.



**Warning**  
Do not insert your hands or any foreign objects into the compartment. This may result in injury or damage. Take special care with children to avoid accidents.

#### Precautions When Using Video Cassettes

- Video cassettes have a safety tab to prevent accidental erasure. If the tab has been removed, recording cannot be performed.
- To prevent accidental erasure**  
Remove this safety tab with a screwdriver.
- To record again**  
Cover the tab hole with adhesive tape.
- Avoid exposing cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, vibrations or shock, strong magnetic fields (near a motor, transformer or magnet) and dusty places.



### 3 BASIC OPERATION

## ON SCREEN DISPLAY / VIDEO CASSETTE USE

This is basic information for the playback operation.

### Displays and Indicators on the Screen

Pressing the **DISPLAY** button makes the operating mode appear. If you press this button again, the indication goes off, leaving the counter indication on the screen. To turn it off, press the **DISPLAY** button once more.

Counter indication

- Linear time counter
- Tape time remaining
- Clock

Each time the **COUNT/TR** button is pressed, the indication changes. (For details, see page 20.)

The indicator varies with the operating mode.

Ejecting a tape	▲
Stop	■
Fast-forwarding	▶▶▶
Reverse picture search	◀◀◀
Recording	●
Recording pause	⏸
Playback	▶▶
Still picture Frame advance	▶▶▶▶
Slow playback	▶▶▶▶▶

**Note**  
In addition to the indication above, the VTR may display other indicators such as index search. See respective pages for each explanation.

### Video Cassette Use

#### ■ Loading a Cassette

Push the cassette into the cassette compartment with the window side facing up and the label side towards the front. The VTR is automatically turned on. The **CTO** indicator will appear in the VTR display.



#### ■ Ejecting a Cassette

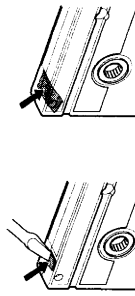
Press the **EJECT** button. The cassette is ejected from the cassette compartment.

#### Warning

Do not insert your hands or any foreign objects into the compartment. This may result in injury or damage. Take special care with children to avoid accidents.

Video cassettes have a safety tab to prevent accidental erasure. If the tab has been removed, recording cannot be performed.

- **To prevent accidental erasure**  
Remove this safety tab with a screwdriver.
- **To record again**  
Cover the tab hole with adhesive tape.



- Avoid exposing cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, vibrations or shock, strong magnetic fields (near a motor, transformer or magnet) and dusty places.

### 3 BASIC OPERATION

## RECORDING

This section explains the basic recording operation. To record satellite programmes, see "SATELLITE" on pages 32 to 35.

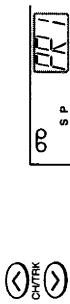
### Recording a TV Programme

#### Preparation

- Turn on the VTR.
- Select the video channel or video input mode on the TV.
- Press the **VTR** button to set the remote control operating the VTR (V-725B only).

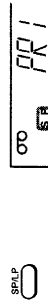
#### 1 Load a cassette with the safety tab attached.

- Select the TV programme (position number) to record with the **CHANNEL** buttons on the VTR, or the **CH/TRK** buttons or **number buttons** on the remote controller.



If "L" or "SA" is displayed in the VTR display, press the **LSELECT** button so that the position number appears.

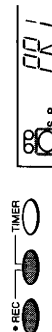
#### 3 Press the **SP/LP** button to select the recording tape speed.



**SP:** Suitable for general recording with better picture and sound quality.

**LP:** Suitable for doubling recording time, but with less picture and sound quality than using the **SP** tape speed.

#### 4 Press the **REC** button on the VTR, or simultaneously press the two **REC** buttons on the remote controller.



#### 5 Press the **STOP** button to stop recording.

While recording, choose another channel using the channel selector on the TV.

Press the **PAUSE/STILL** button to stop recording momentarily. To resume recording, press the **PAUSE/STILL** button again.

**Note**  
The VTR automatically shifts to the stop mode if the recording pause mode continues for 10 minutes.

### 3 BASIC OPERATION

## VIDEO Plus+ Deluxe PROGRAMMING SYSTEM RECORDING

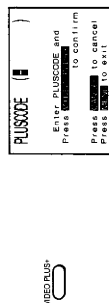
You can easily programme a recording simply by entering the PlusCode programming number. The numbers are published in the TV listings of newspapers, TV guide magazine, etc.

### VIDEO Plus+ Deluxe Programming System Recording

#### Preparation

- Turn on the VTR.
- Select the video channel or video input mode on the TV.
- Press the VTR button to set the remote control operating the VTR.
- Make sure that the clock is set correctly.
- Make sure that the TV stations have been stored properly (page 12).

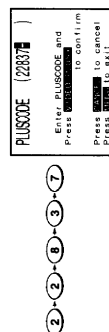
- 1 Press the **VIDEO PLUS+** button.  
The VTR enters the VIDEO Plus+ Deluxe programming system mode.



- 2 Enter the PlusCode programming number.

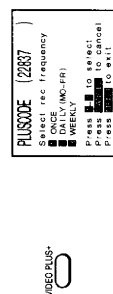
**Example:** To record a TV programme beginning at 18:00 on August 30, 1999 with PlusCode programming number 22837 (fiction).

Press **number button 2, 8, 3 and 7**.  
Confirm that the entered number is correct.



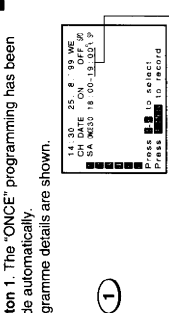
- To correct the number, clear all digits by pressing the **CANCEL** button and re-enter a number.

- 3 Press the **VIDEO PLUS+** button.  
The TV screen changes as follows:



**ONCE:**  
DAILY (MO-FR): Records TV programmes on the same TV channel at the same time Monday through Friday.  
**WEEKLY:**  
Records TV programmes on the same TV channel at the same time on the same day every week.

- 4 To select "ONCE" for example, press **number button 1**. The "ONCE" programming has been made automatically.  
Programme details are shown.



Ex. If you set 10 minutes time extension on the USER SETTING screen (see below), "OFF" displays 19:10.

- 5 To set PDC, move forward to "PDC" by the **SHIFT(→)** button, and press **number button 1**. If not set, press **number button 2**.

**Note**  
If you have set the VTR to the satellite receiver control mode (SAT displayed), PDC cannot be set.

- 6 To change the tape speed, press the **SPLP** button.

- 7 Press the **VIDEO PLUS+** button.  
The programme setting is now memorized.

- 8 To enter another PlusCode programming number, repeat steps 2 to 7.

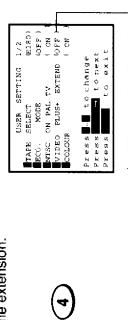
- 9 Finally press the two **TIMER** buttons simultaneously. The VTR enters the timer standby mode and the **Ⓢ** indicator lights up.



### Setting Time Extension

Before making a VIDEO Plus+ Deluxe programming system recording, set possible time extension for the recording to allow for programme's overrun. You can extend the recording time in 10 minute increments up to 60 minutes.

- 1 Press the **MENU** button to display the MAIN MENU screen.
- 2 Press **number button 2** to select "USER SETTING".
- 3 Press **number button 4** repeatedly to set desired time extension.



- 4 Press the **MENU** button twice to exit.

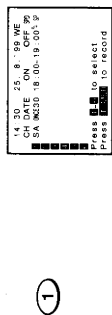
#### Notes

- Extend time should be set before starting VIDEO Plus+ Deluxe programming system recording procedure.
- The time extending doesn't work on recording programmes already memorized.
- When you do not use time extension for VIDEO Plus+ Deluxe programming system recording, set to "OFF" on the USER SETTING screen.

### Confirming the VIDEO Plus+ Deluxe Programming System Timer Programme

- Before the VTR enters the timer standby mode (**Ⓢ** indicator not lit)

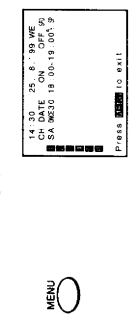
- 1 Press the **MENU** button to display the MAIN MENU screen.
- 2 Press **number button 1** to select "TIMER PROGRAMMING".



Check the programmed data.

- 3 Press the **MENU** button twice to exit.  
During the timer programme recording (**Ⓢ** indicator lit)

- 5 Press the **MENU** button.  
The screen for confirming appears.



After about 30 seconds, the screen disappears.

### Cancelling the Video Plus+ Deluxe Programming System Timer Programme

- 1 If the **Ⓢ** indicator is lit, press the two **TIMER** buttons to turn it off, and turn on the VTR by pressing the **ON/STANDBY**.
- 2 Press the **MENU** button to display the MAIN MENU screen.

- 3 Press **number button 1** to select "TIMER PROGRAMMING".

- 4 Select a program number which you want to cancel by using **number buttons**.

- 5 Press the **CANCEL** button.  
The line is cleared out.

- 6 Press the **MENU** button.

### Recording or Playback in the Timer Standby Mode

- 18 First press the two **TIMER** buttons to release the timer standby mode, and then press the **ON/STANDBY** button to turn on the VTR. The VTR will be available for use.
- 12 • Be sure to press the two **TIMER** buttons again to return the VTR to the timer standby mode after you operate.
- 18

### If a Power Failure Occurs During the Timer Programme Recording

- If the **Ⓢ** indicator is missing in the VTR display after the power failure, the programmed contents have been cleared. Reset the timer programming.
- When power has failed for a short time, the color of the current time display blinks. The programmed contents are not affected. Reset the clock.

### Error Indicators

When the "Full (Clear prog?)" message appears on the TV during programming, no more programmes can be entered. If you want to add another programme, select one existing programme on the screen by using number buttons, and press the **CANCEL** button to delete it.

If impossible PlusCode programming number is entered, "Invalid code entered" blinks on the screen to tell you that the recording cannot be performed. Press the **CANCEL** button to clear the PlusCode programming number and enter correct one.

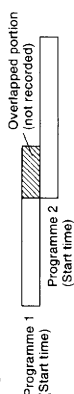
If "Clash" message appears on the screen during programming, it tells you that two programmes with the same recording start time have been entered. You have to make a correction. On this screen, item number means that the item has been entered later.

- 1) Enter the number of the programme you want to correct using **number buttons**.

- 2) Correct the timer programming data, or clear the data by pressing the **CANCEL** button and then press the **VIDEO PLUS+** button to enter the PlusCode programming number.

### Overlap of the programmes

If two programmes overlap, the recording start time of programme 2 has a priority over the recording end time of programme 1.



## BASIC OPERATION

### 3.5 TIMER PROGRAMME RECORDING

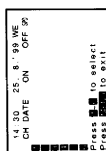
The programmable timer allows you to record up to 6 different programmes over one month.

#### Timer Programming Procedure

- Preparation**
- Select the video channel or video input mode on the TV.
  - Press the VTR button to set the remote controller operating the VTR.
  - Make sure that the clock is set correctly.

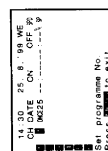
To record a programme of a station stored on position number 1 (e.g. BBC1) in the SP tape speed from 21:30 until 22:00 on August 30. Today is August 25.

- 1 Load a cassette with the safety tab attached.
- 2 Press the MENU button. The MAIN MENU screen appears.
- 3 Press number button 1 to select "TIMER PROGRAMMING".



Programme number 1 is ready to accept your input.

- 4 Select an empty programme number using number buttons 1 to 6.



- 5 To select position number 1, press number button 0 and 1.

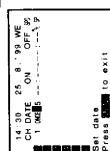


- 6 If you record from the connected external equipment, make "L" or "SA" appear by pressing the I/SELECT button as follows:
  - L : Via the I/OUT (SCART) socket on the rear panel
  - SA: From the satellite receiver connected to the SATELLITE (SCART) socket on the rear panel.

#### To make corrections:

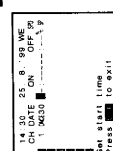
Press the SHIFT (←) button to move back to the item, or the SHIFT (→) button to move forward.

- 6 Select a frequency of recording. (eg. once)



You can also set daily or weekly timer programme recordings. (See next page.)

- 7 Set the recording date.

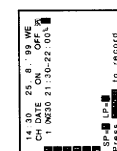


- 8 Set the recording start time and the off time.

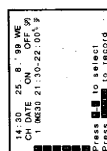


- 9 To set PDC, press number button 1: if not set, press number button 2.

**Note**  
If you have set the VTR to the satellite receiver control mode (SA displayed) in step 5, PDC cannot be set.



- 10 Select the tape speed (SP).



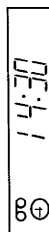
To set another programme, follow steps 4 to 10. In step 4, select next programme number.

- 11 Press the MENU button. Now programming is complete.

- 12 Press the two TIMER buttons simultaneously.



The power turns off and the VTR enters the timer standby mode.



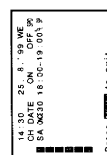
#### Daily and Weekly Recording

- 1 **Daily recording**  
You can record TV programmes on the same channel at the same time Monday through Friday. Press number button 2 for "DAILY" in step 6.

- 1 **Weekly recording**  
You can record TV programmes on the same channel on the same day and time every week. Press number button 3 for "WEEKLY", then number button 1 to 7 to select a day of the week in step 6.

#### Confirming the Timer Programmes (During the Timer Programme Recording)

- 5 Press the MENU button. The screen for confirming will appear.



After about 30 seconds, the screen disappears.

#### Changing/Deleting the Timer Programme

- 1 If the E indicator is lit, press the two TIMER buttons to turn it off, and then turn the VTR on by pressing the ONSTANDBY button.
- 2 With steps 2 to 11, change the items.
  - To cancel a programme, select the programme number you want to cancel in step 4, and press the CANCEL button. The line is then cleared.
- 3 Press the two TIMER buttons to return to the timer standby mode.

#### Recording by Playback in the Standby Mode

- 18 First press the two TIMER buttons to release the timer standby mode, and then press the ONSTANDBY button to turn on the VTR. The VTR will be available for use.

- Be sure to press the two TIMER buttons again to return the VTR to the timer standby mode after you have finished.

#### Error Indication

- The 'E' (Error) indicator appears in the VTR display if you press the TIMER buttons when:
    - a cassette is not loaded
    - the loaded cassette has no safety tab
    - the timer programme is set
- In these cases, a recording can not be made.

#### If a Power Failure Occurs During the Timer Programme Recording

- If the E indicator is missing in the VTR display after the power failure, the programmed contents have been cleared. Reset the timer programming.
- When power has failed for a short time, the colon of the current time display blinks. The programmed contents are not affected. Reset the clock.

#### Overlap of the Programmes

If two timer programmes overlap, the recording start time of programme 2 has priority over the recording of time of programme 1.



## BASIC OPERATION

## 3.6

## OPTIONAL SETTINGS / COUNTER FUNCTION

These functions will help your playback.

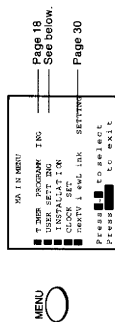
## Optional Settings

You can easily make necessary settings using the on-screen display.

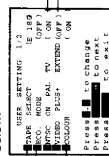
## Preparation

- Turn on the VTR.
- Press the VTR button to set the remote controller operating the VTR.
- Select the video channel or video input mode on the TV.

- Press the **MENU** button.  
The MAIN MENU screen appears.



- Press number button 2 to select "USER SETTING".  
For details on each item, refer to pages respectively as below.

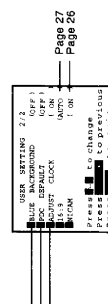


Press number button 1 to select the used tape type.  
The tape type changes as follows:  
→ E180 → E240 → E260 → E300

- Press number button 2 to turn on or turn off the VTR display during power standby. With "ON" set, VTR display will be cut-off to reduce energy consumption.

- Press number button 3 to select "OFF", if the TV programme or the tape is monochrome.

Press **SHIFT**(→) button to go to page 2/2 of USER SETTING.



With "ON" set, the TV screen automatically turns blue when selected channel is not broadcasting.  
—no picture is recorded on the tape.  
—no video signal is sent from the selected input source.

- Pressing number button 1 switches "ON" and "OFF".

- With "ON" set, the POC default setting for all time programming will be set to on.  
Pressing number button 2 switches "ON" and "OFF".

- With "ON" set, the VTR time is automatically updated.  
Pressing number 3 switches "ON" and "OFF".

- Press the **MENU** button twice to return to exit screen.

## Counter Function

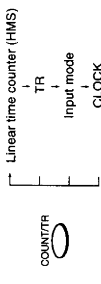
You can view the clock, linear time counter or tape remaining time in the VTR display or on the TV screen.

## Preparation

Press the VTR button to set the remote control operating the VTR.



Each time you press the **COUNT/TR** button, the VTR display changes in sequence as follows:



The indication above will also appear on the TV screen by pressing the **DISPLAY** button. They are switchable with the **COUNT/TR** button.

To reset the linear time counter to "0:00:00:00S"  
The counter is automatically reset to "0:00:00:00S" when a cassette is ejected. If you want to reset at another point, such as the beginning of a new recording, just press the **COUNT/TR** and **CANCEL** button simultaneously.

## Notes

- The linear time counter does not work on non-recorded portions on the tape.
- When the tape is ejected or the VTR is turned off, the display changes to clock.
- If the tape rewinds back over "0:00:00:00S", "-" appears in the VTR display.
- The displayed time of the linear time counter is only an approximation.

## ADVANCED OPERATION

## 4.1

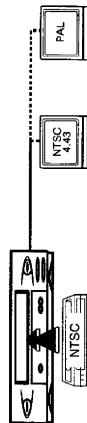
## NTSC-RECORDED TAPE PLAYBACK

This VTR can play back an NTSC-recorded tape. You can watch the playback picture on a PAL system TV or an NTSC 4.43 system TV.

## Setting for NTSC Playback

When you play back an NTSC-recorded tape on this VTR, make a setting on the USER SETTING screen according to your TV.

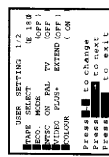
NTSC tape: tapes on which NTSC M system broadcasts mainly broadcast in the U.S. and Japan are recorded, and tapes recorded in the NTSC video system which are commercially available on the market.



- Press the **MENU** button to display the MAIN MENU screen.

- Press number button 2 to select "USER SETTING".

- Sat "NTSC ON PAL TV" to "OFF" by pressing number button 3.



3

- Press the **MENU** button twice to exit.

- Press the **MENU** button twice to exit.

## Note

- With this VTR, an NTSC tape recorded in the SLP tape speed can be played back. But there are some points to be observed.
  - The quality of the playback picture and sound are not clear.
  - Variable speed playback (picture still, slow playback, etc.) can't be performed properly.
  - Digital auto tracking may not be performed properly.

- Use a TV compatible with PAL video signals of PAL 60 (525 lines).

When the TV, that is not compatible with PAL video signals of PAL 60, is used (when the TV, that is compatible only with PAL video signals of PAL 50 (625 lines), is used) NTSC playback pictures may roll up and down. This is not malfunction of the VTR or the TV. If your TV is equipped with a V-HOLD control, it may be possible to stop the rolling of pictures by adjusting this control.

About PAL 50 and PAL 60 of PAL video signals:

PAL 50: is a normal signal and its PAL video signal is 50 fields (625 lines).  
PAL 60: is a special signal and its PAL video signal is 60 fields (525 lines).

Some TVs operate properly only with PAL 50 signals, some TVs operate properly with both PAL 50 and 60 signals. Therefore, if your TV is switchable between PAL 50 (625 lines)/PAL 60 (525 lines), you can view an NTSC recorded tape in the PAL colour system with your own TV.

- Depending on the TV used, the picture may shrink vertically and black bars may appear both at the top and bottom of the TV screen. This is not an indication of malfunction.
- Variable speed playback (picture search, still, slow playback, etc.) may produce a skewed image and quite a bit of noise on the picture.
- If the tape pre-recorded in the SP tape speed mode is played back in the picture search mode, the picture may be reproduced with no colour.

## Note

For viewing an NTSC-recorded tape, we recommend using an NTSC 4.43 TV.



## 4 ADVANCED OPERATION 2 VARIABLE SPEED PLAYBACK

You can play back a tape at various tape speeds.

### Variable Speed Playback

A variety of tape speeds are available on this VTR.

**Picture search:** Plays back at 5 times or 9 times the normal playback speed so that you can quickly locate a particular scene.

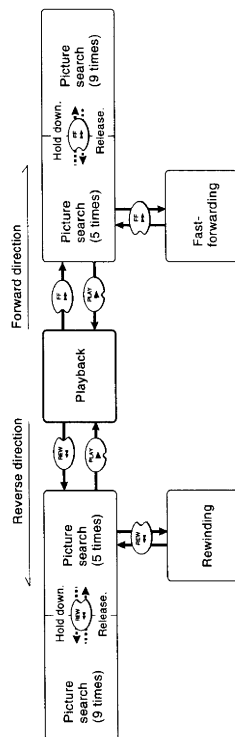
**Still picture:** Freezes the picture so that you can watch closer.

**Slow-motion picture:** Plays back at 1/6th or 1/12th the normal playback speed.

**Frame advance:** Advances the picture frame by frame.

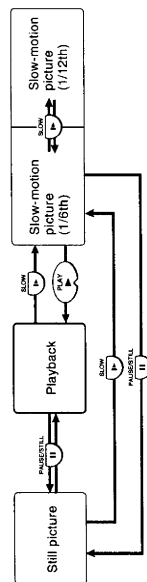
### Picture Search

While playing back a tape, press the **FF** or **REW** button. The tape runs at 5 times the normal playback speed.



### Still Picture

While playing back a tape, press the **PAUSE/STILL** button. The picture freezes.



### Notes

- The still mode is automatically cancelled after about 5 minutes and returns to normal playback.
- The still picture may shake if a picture of a fast-moving object or scene is frozen. This is not a defect in the unit.

### Adjusting Still Picture Stability

If the still picture is distorted or flickers, hold down one of the **CH/TRK** buttons until the picture becomes stable.

### Note

The distortion of the still picture may not be eliminated completely.

### Notes

- The slow-motion picture mode is automatically cancelled after about 5 minutes and returns to normal playback.
- The slow-motion picture may flicker up and down. This is not a defect in the unit.

### Adjusting the Tracking Manually

If the slow-motion picture is noisy, hold down one of the **CH/TRK** buttons until the best picture is obtained.

### Note

The noise in the slow-motion picture may not be eliminated completely.

While the picture is frozen (see "Still Picture"), press the **PLAY** button repeatedly. The picture advances one frame as you press the button.



If you press and hold the button, the tape runs at 1/25th the normal playback speed.

To resume normal playback, press the **PAUSE/STILL** button.



### Notes

- If you playback a tape recorded in the LP or SLP tape speed or a tape recorded on another VTR in various speed mode, the picture may be noisy or monochrome.
- When you use an NTSC-recorded tape, picture search and accelerated picture search, the slow-motion picture speeds are as follows.

	Accelerated picture search		
PAL (SP)	x5	x9	1/6
PAL (LP)	x5	x13	1/6
NTSC (SP)	x5	x7	1/15
NTSC (SLP)	x5	x15	1/7

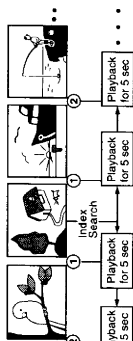
## 4 ADVANCED OPERATION INDEX SEARCH

You can easily locate the desired programme using the index signal registered on the tape.

### About This Function

#### Index Search

The VTR plays back each programme with an index signal for about 5 seconds.



To use this function, index signals have to be registered on your tape. For registering index signals, follow the procedure below.

#### Registering Index Signals

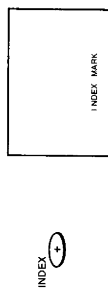
- **Registering index signals automatically**  
An index signal is automatically registered when a recording starts.

#### Notes

- An index signal is not registered when the VTR is in the recording pause mode and recording restarts.
- An index signal is also registered when a timer programme recording starts.

- **Registering index signals manually**  
Index signals can be manually registered at desired points on the tape during recording.

Press the **INDEX (+)** button at a desired point.



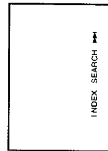
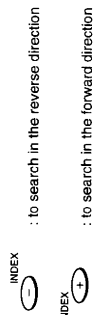
#### Note

- When registering two or more index signals, certain intervals are required: more than 1 minute in the SP tape speed and more than 2 minutes in the LP tape speed.

### Index Search

This function plays back the tape for about 5 seconds at each index signal.

- 1 Load a cassette with the index signals registered.
- 2 Press the **INDEX (-)** or **(+)** button in the stop or playback mode.



The VTR fast-forwards or rewinds the tape. When an index signal is found, the VTR plays back the tape for about 5 seconds, and then resumes fast-forwarding or rewinding. This is repeated each time at an index signal.

- 3 Press the **PLAY** button when the desired programme is found.  
Normal playback starts.



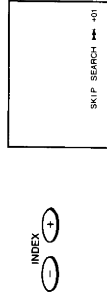
#### Notes

- At the very beginning of the tape, the index search function may not work properly.
- If you registered the index signals on a tape recorded on another VTR, the recording may be blurred at the index point and the index search may not work properly.

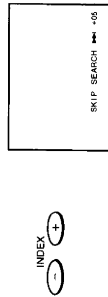
### Skip Search

This function fast-forwards or rewinds the tape to the point at which the selected index signal is registered, and starts playback from there.

- 1 Load a cassette with the index signals registered.
- 2 Press the **INDEX (-)** or **(+)** button twice in the stop or playback mode.



- 3 Press the **INDEX (-)** or **(+)** button depending on the direction where your desired programme is located.  
Each time you press the **(-)** or **(+)** button, the number decreases or increases respectively.

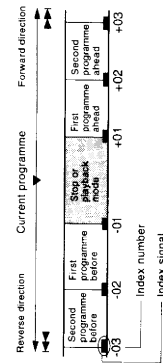


The VTR starts to search for the point you specified with the **(-)** or **(+)** button. When the point is found, playback will start automatically.

#### Notes

- You can set an index number up to +20.
- The skip search is cancelled when the **PLAY** or **STOP** button is pressed.

### Locating the Index Number



#### [Example]

- To locate the beginning of first programme before, press the **INDEX (-)** button three times to set the index number -02.
- To locate the beginning of next programme ahead, press the **INDEX (+)** button twice to set the index number +01.

# ADVANCED OPERATION

## 4 NICAM COMPATIBILITY / AUDIO SELECT

This VTR incorporates a special decoder that can receive NICAM broadcast programmes.

### NICAM Broadcast Programme

NICAM programmes are divided into 3 types.  
NICAM Stereo, NICAM Mono and Bilingual  
(transmission in another language). NICAM  
programmes are always accompanied by a standard  
mono sound broadcast and you can select the  
desired sound on the screen (for recording) or with  
the A SELECT button (for playback).

**1** Press the **MENU** button.

**2** Press number button **2**.

**3** Press the **SHIFT** (→) button and number button **5** to set "NICAM" to "ON".

**4** Press the **MENU** button twice to exit.

**ON:** Normally set at this position.  
**OFF:** Only set at this position to record the standard mono sound during a NICAM broadcast if the stereo sound is distorted due to inferior reception conditions.

**5** Press the **MENU** button twice to exit.

This unit's Hi-Fi stereo audio track (2-channel) can be used to playback an excellent Hi-Fi sound. Sound that has been recorded on the normal audio track is compatible with conventional VTRs.

When playing back a Hi-Fi recorded tape, press the **A SELECT** button to select desired sound output. The [L], [R] indicators in the VTR display tell you what kind of sound output you are selecting. Accordingly, you can select the desired sound output while observing the lit and/or unit indicators.  
(See above "Monitoring Sound Output".)

### Monitoring Sound Output

When monitoring a TV programme or playing back a Hi-Fi recorded tape, press the **A SELECT** button to select a desired sound output. As the **A SELECT** button is pressed, the sound output and the indicator change as below:

Sound type	Stereo sound	Bilingual sound	Standard sound broadcast
VTR display	[L] [R]	[L] [R]	[L] [R]
Heard in stereo left and right channel	Heard in stereo left and right channel	Channel I (MAIN) heard from the left speaker. Channel II (SUB) heard from the right speaker.	Heard in monoaural.
Left channel heard from both the left and right speakers.	Left channel heard from both the left and right speakers.	Channel I (MAIN) heard from both the left and right speakers.	Heard in monoaural.
Right channel heard from both the left and right speakers.	Right channel heard from both the left and right speakers.	Channel II (SUB) heard from both the left and right speakers.	Heard in monoaural.
Heard in monoaural.	Heard in monoaural.	Channel I (MAIN) heard from both the left and right speakers.	Heard in monoaural.
Sound mixed the left and right channel, and the normal audio track. (See below.)			

### Sounds of a recorded TV programme

This VTR is capable of recording sound in Hi-Fi system. Stereo broadcasts and bilingual sound broadcasts are recorded in its original sound system regardless of the setting. (See the list above.)

#### Notes

- When listening to a stereo broadcast or playing back a Hi-Fi tape recorded in stereo, you have to connect the VTR with the stereo audio system or the stereo TV with a SCART cable.
- The sound which is output from the AERIAL OUTPUT socket is monoaural.
- If a tape which is not Hi-Fi recorded is played back, [L], [R] indicators go off automatically and the sound output is monoaural.

This function enables you, for example, to record your voice on a Hi-Fi recorded tape ("Audio Dubbing", page 28).

Press the **A SELECT** button several times to make "Mix" appear in the VTR display.



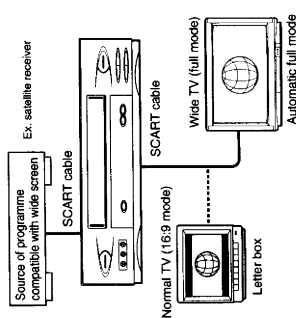
# 4 5 ADVANCED OPERATION

## 16:9 (WIDE SCREEN) COMPATIBILITY

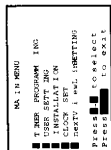
This VTR is compatible with the 16:9 (Wide Screen) format.

### 16:9 (Wide Screen) Compatibility

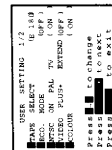
The VTR automatically adjusts the image to fill the wide TV screen when you play back a tape commercially available which is recorded in the wide screen format, or when you record or play back a wide TV programme via the connected satellite receiver, etc.



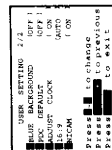
**1** Press the **MENU** button.



**2** Press number button **2**.



**3** Press **SHIFT** (→) button and number button **4** to set "16:9".



**AUTO:** Set when you use a wide TV.

The VTR detects wide TV programmes and normal TV programmes automatically when playing back and recording.

**ON:** The VTR always plays back and records in the mode compatible with 16:9 wide screen.

**OFF:** Set if the VTR cannot detect wide TV programmes with "AUTO" set.

Set if you do not use a wide TV.

**4** Press the **MENU** button twice to return to the normal TV screen.

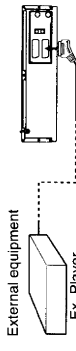
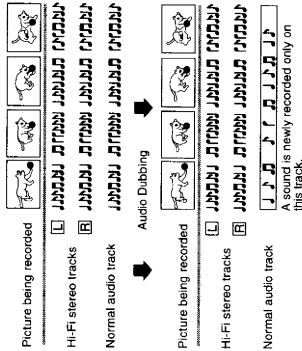
**Important**  
Connect equipment compatible with wide screen, to the VTR using the SCART cable.

## 4 ADVANCED OPERATION 6 EDITING

Using another VTR or external equipment, you can copy a tape.

### Audio Dubbing

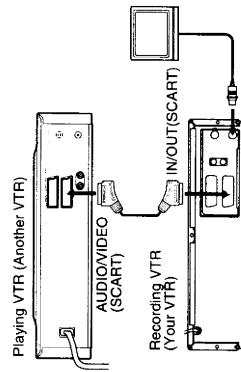
You can record sounds by importing from an external equipment connected to the LINE IN jacks, onto the normal audio track of a pre-recorded tape, without erasing the pictures or sounds on the Hi-Fi stereo track.



**Notes**  
To monitor the recorded sound, press the A-SELECT button to select the sound output. (See page 26.)

### Tape Copying

Using another VTR or external equipment, you can copy a tape.



**Important**  
It is permissible to record television programmes only in the event that third party copyrights and other rights are not violated.

## 4 ADVANCED OPERATION 7 MULTI BRAND REMOTE CONTROLLER (V-729B only)

The remote controller can be compatible with various brands of TV by setting their control codes. The TOSHIBA code has initially been set to control TOSHIBA TVs.

### Setting Control Codes

**1** While holding down the TV button, enter the two digits of your TV's brand code (listed right) using **number buttons**.



**2** Release the TV button.

**3** Point the remote controller at your TV and use each button listed below to make sure that your TV is operated correctly.

ON/STANDBY	To turn the TV on or off.	12
CH	To select TV channels in the upper or lower direction.	13
VOL. (Volume)	To adjust the sound level.	14
INPUT SELECT	To select an external source such as a VTR.	2
Number buttons/ENTER button	To select TV channels. Way of use may differ with models of TV. Check how they work on your TV. Ex. To select channel 3: • 0→3 • 0→3→ENTER • ENTER→3 To select channel 16: • 1→6 • 1→6→ENTER • ENTER→ENTER→1→6	1 15

**Important**  
Some TVs may not respond to all the operations above, or may not be operated at all with this remote controller. In this case, operate your TV with its own remote controller.

**Notes**  
• For some brands, several control codes (brand codes) are allocated. Try each of them until the buttons work on your TV.  
• If you replace the remote controller's batteries, set the brand code again.

### Table of Brand Codes

Brand name of your TV	Brand code
TOSHIBA	01, 14, 15, 16, 17, 19
AKAI	08
BANG & OLUFSEN	20
BLAUPUNKT	04
BRANDT	11
BRIONVEGA	20
CSE	19
CONTINENTAL EDISON	22
FERGUSON	11, 24, 25
FINLUX	02, 15, 20
FISHER	08
FORMENTI	20
GOLDSTAR	02
GRUNDIG	04, 15, 19
HITACHI	06, 10, 11, 22
IMPERIAL	19
JVC	07
LOEWE	02
LOEWE OPTA	02, 20
METZ	20
MITSUBISHI	02, 09, 14
MIVAR	19
NOKIA	21
NORDMENDE	10, 11, 22
PANASONIC (NATIONAL)	03, 21, 26
PHILIPS	02, 18, 20
PHONOLA	02, 18, 20
PIONEER	11, 21
RADIOLA	02, 18
RADIONAPRELLI	20
REX	21
SABA	10, 11, 20, 21, 22
SALORA	21
SAMSUNG	02
SANYO	08, 14, 27, 28, 29, 30
SCHNEIDER	02
SELECO	21
SHARP	05, 14, 27
SIEMENS	04
SINGER	20
SINUDYNE	20
SONY	13, 14
TELEAVIA	11
TELEFUNKEN	11, 24
THOMSON	10, 11, 22
WEGA	20
YOKO	02

## 4 ADVANCED OPERATION

### 8 nexTVViewLink

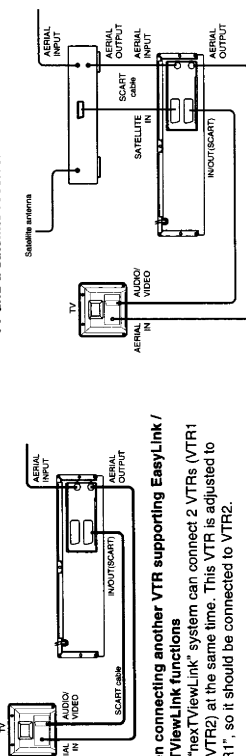
If your TV has the "EasyLink / nexTVViewLink" function, the VTR makes your VTR's setup and operations easier.

#### nexTVViewLink FUNCTION of this VTR

- Using a SCART cable (21 pins), a mutual control is available with the TV, VTR, SAT receiver, etc.
- The VTR automatically stores all your current TV stations in the VTR in the same position order as the TV channels. ("TV CH P. DOWN LOAD")
  - Even if the TV is in standby mode, the TV automatically turns on and displays the video picture when you start playback on the VTR.
  - The VTR automatically selects the same picture as you are watching on the TV, and record it. ("TV PICTURE RECORD")
  - The VTR takes in the data and turns to timer standby mode, after a programme data reserved is transferred to the VTR by a TV using such as a EPG (Electronic Programme Guide). In this case, the TV's and the VTR's channel position must be set to the same TV station. The position could be stored from 1 to 99. Also the VTR's clock must be set.

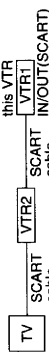
Connect your EasyLink / nexTVViewLink TV to the AUDIO/VIDEO (SCART) socket on the VTR using the SCART cable. Refer to your TV's manual additionally.

- Connection to your EasyLink / nexTVViewLink TV
- Connection to your EasyLink / nexTVViewLink TV and a satellite receiver



#### When connecting another VTR supporting EasyLink / nexTVViewLink functions

The "nexTVViewLink" system can connect 2 VTRs (VTR1 and VTR2) at the same time. This VTR is adjusted to "VTR1", so it should be connected to VTR2.



#### TV CH P. DOWN LOAD

##### Preparation

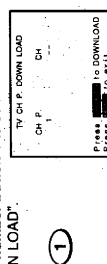
- Turn on the TV.
- Select the video channel or the video input mode on the TV.
- Press the VTR button to set the remote control operation your VTR.

1 Press the **MENU** button to display the MAIN MENU screen.

2 Press number button 5 to select "nexTVViewLink SETTING".



3 Press number button 1 to select "TV CH P. DOWN LOAD".



4 Press the **SHIFT** (→) button to start downloading.



5 When the downloading is finished, the "nexTVViewLink SETTING" screen returns.

6 Press the **MENU** button twice to exit.

##### Notes

- The available position numbers on the VTR are 1 to 99.
- When the TV's channel position is registered, the VTR automatically makes "TV CH P. DOWN LOAD".

30

#### TV PICTURE RECORD

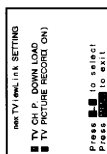
##### Preparation

- Turn on the TV.
- Select the video channel or the video input mode on the TV.
- Press the VTR button to set the remote control operation your VTR.

1 Press the **MENU** button to display the MAIN MENU screen.

2 Press number button 5 to select "nexTVViewLink SETTING".

3 Press number button 2 to set "TV PICTURE RECORD" to "ON".



4 Press the **MENU** button twice to exit.

1 Load a cassette with the safety tab attached.

2 Press the **SPLP** button to select the recording tape speed.

3 Press the **REC** button on the VTR, or simultaneously press the two **REC** buttons on the remote controller.



The VTR automatically selects the same picture as you are watching on the TV, and starts recording. Depending on the picture sources, the recording switches the method. See below.

4 Press the **STOP** button to stop recording.

##### Notes

- This recording is not available on the timer programme recordings.
- When you do not perform "TV PICTURE RECORD", set "TV PICTURE RECORD" to "OFF".
- If the TV has a key to operate the TV picture recording, the TV PICTURE RECORD could be selected on the TV. In this case, the VTR's TV PICTURE RECORD must be set to "ON".

During recording, if you change the channel or the input mode on the TV, the recording will be:

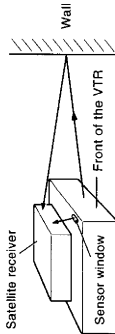
Picture	The VTR records:	Ex. TV channel 1
Channel selected on the TV If you performed "TV CH P. DOWN LOAD" (TV stations stored on the VTR and the TV in the same position order).	VTR channel of the same number as the TV channel	Continued. PR 1
If you did not perform "TV CH P. DOWN LOAD" (TV stations not stored on the VTR and the TV in the same position order).	LINE (output of the TV)	Stopped. L
Pictures of external equipment connected to the TV...	LINE (output of the TV)	Stopped. L
Channel selected on the VTR	VTR channel	Continued. PR 1

31

**Your satellite channels can be selected or changed on this VTR via the connected satellite receiver, same as TV channels.**

**VTR**  
You can select satellite channels by operating this

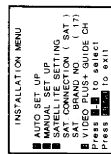
**Important**  
Put the satellite receiver on the top of the VTR as shown below. Do not block the sensor window.



**Note**  
If the channels cannot be controlled properly because the infrared signal fails to reach the satellite receiver, change the position of the satellite receiver on the VTR so that it can receive the signal.

- Keep the connected satellite receiver turned on. Make sure your satellite receiver is connected to the VTR correctly. (See page 10.)
- Select the video channel or video input mode on the TV.
- Press the VTR button to set the remote control operation your VTR.

**2** Press number **button 3** to select "INSTALLATION".



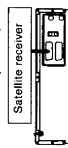
SATELLITE CONNECT ION  
How is your satellite  
connected?

■ SATELLITE SCART (SAT)  
■ RF AERIAL (CH F.)  
■ AV SCART (LINE)

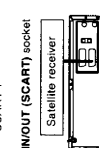
press ☐ to select

②

• SATELLITE (SCART) socket • AERIAL INPUT socket



1 Select "SATELLITE SCART".



**3** Select "AV SCART".

After you select 1 to 3, the screen changes as below.

**5** Enter three figures of the brand code for your satellite receiver by **number buttons**. Check the brand code list (page 33).

Ex. To enter brand code 33:



When you enter the brand code, the VTR sends a test signal to the satellite receiver to make sure that the brand code has been entered correctly. The signal will set the satellite channel to 12. If channel 12 is displayed on your satellite receiver, it means the brand code is set correctly.

Several codes may be allocated to one brand. Enter one after the other until the channel shows 12.

Press the **MENU** button.

**7** Select 1 to 4 using **number buttons** as below depending on your satellite receiver.

Select...

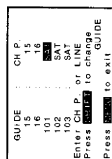
- 1: If the channel of SKY ONE is 1\*.
- 2: If the channel of SKY ONE is 8\*.
- 3: If the order is personal choice.
- 4: If your satellite receiver did not change to channel 12 in step 5.

Refer to the "GLIDE Channel Table" (page 38)

If you selected **3**, the screen changes as below.

It is necessary to make the setting of the GUIDE channels on this screen.

AUTO SET UP  
MANUAL SET UP  
SATELLITE SETTING  
SAT. CONNECTION ( SAT )  
SAT. BRAND NO. ( 33 )  
VIDEO PLUS+ GUIDE CH



8 Press the **MENU** button several times until you return to the normal TV screen.

### Table of Satellite Receiver Brand Codes

Brand name	Brand code
TOSHIBA	17, 33
ALBA	1, 2, 9, 16, 17, 65, 66
AMSTRAD	3, 4, 5, 17, 55, 56, 77, 89, 90, 91, 124
AMSTRONG	17, 43
BIG BROTHER	7, 8, 17
BT	17, 122, 123
BUSH	2, 9, 16, 17, 65, 66
CABLE STAR	17, 101, 102, 103, 104
CABLETIME	17, 101, 102, 103, 104
CAMBRIDGE	17, 122, 123
CHANNEL MASTER	2, 3, 10, 17
DMAC DECODER	17, 72
DRAKE	17, 45
ECHOSTAR	13, 14, 17, 92, 93, 94
FERGUSON	9, 15, 16, 17, 23, 38, 59, 106
GRUNDIG	17, 19, 28, 71, 125
ITT/NOKIA	17, 26, 27, 50, 51, 52
JVC	17, 122, 123
LENCO	17, 49
MASPRO	17, 20, 64, 67
MATSUJI	17, 125
NEC	17, 22, 57
NEWBORN	9, 15, 17

- For some brands, several brand codes are allocated.
- Some satellite receivers may not be operated at all with this VTR.

Brand name	Brand code
------------	------------

NORDMENDE	17	
PAGE	9, 16, 17, 23, 38	
PANASONIC	17, 61	
PHILIPS	16, 17, 24, 46, 73	
REDIFUSION	17, 25	
REVOX	17, 21	
SAKURA	17, 62, 63, 68	
SALORA	17, 26, 27, 50, 51, 52	
SAMSUNG	17, 36	
SIEMENS	17, 23	
SENTRA	10, 17	
SONY	17, 30	
TATUNG/NIKKO	17, 32, 54, 58, 80, 81	
TEXSCAN	17, 119, 120	
THOMSON	7, 17, 39	
TRISTAR	17, 31	
UNIDEN	17, 67	
VIDEOTRON	17, 105, 106, 107, 108, 109, 110, 121	
WISI	17, 35, 37, 41, 92	

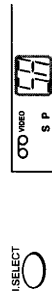
- For some brands, several brand codes are allocated.
- Some satellite receivers may not be operated at all with this VTR.

# **5** **SATELLITE** **2** **RECORDING FROM A SATELLITE RECEIVER** If you are using a satellite receiver, you can connect it to this VTR to record a satellite programme.

## **Recording Procedure**

- Preparation**
- Turn on the VTR.
  - Select the video channel or video input mode on the TV.
  - Press the VTR button to set the remote control operation your VTR.
  - Make sure your satellite receiver is connected to the VTR correctly using a SCART cable (page 10), and turn it on.

- 1** Load a cassette with the safety tab attached.
- 2** Press the **ISELECT** button so that "SA" indicator appears in the VTR display.

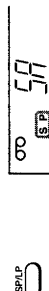


Each time you press the **ISELECT** button, the display changes as follows.

→ PR (position number) → L → SA (satellite)

- 3** Select the desired satellite channel on the connected satellite receiver. Make sure that the selected channel is on the TV.

- 4** Press the **SP/LP** button to select the recording tape speed.



- 5** Press the **REC** button on the VTR, or simultaneously press the two **REC** buttons on the remote controller. Recording starts.



- 6** Press the **STOP** button to stop recording.

**21** **K**



Choose a desired TV channel on the TV.

# **5** **SATELLITE** **3** **VIDEO Plus+ Deluxe PROGRAMMING SYSTEM RECORDING OF SATELLITE PROGRAMMES** You have to set the GUIDE channel to record a satellite programme by VIDEO Plus+ Deluxe programming system.

## **GUIDE Channel Setting for Satellite Channels (Using a Satellite Receiver)**

The VTR generally does this setting during "Setting to Control Satellite Channels" procedure (page 32). Use this procedure to correct the GUIDE channels or to make the GUIDE channel setting if your satellite receiver has a channel order other than SKY or ASTRA.

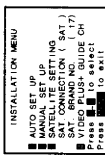
### **Preparation**

- Select the video channel or video input mode on the TV.
- Press the VTR button to set the remote control operation your VTR.

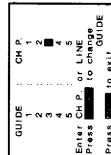
**Example** To set a GUIDE channel 101 of SKY ONE.

- 1** Press the **MENU** button to display the MAIN MENU screen.

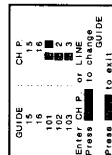
- 2** Press number button **3** to select "INSTALLATION".



- 3** Press number button **4** to select "VIDEO PLUS+ GUIDE CH".



- 4** Scroll the numbers to put 101 in the center position of the "GUIDE" column using the **SHIFT** button.



Refer to the chart you prepared (page 36).

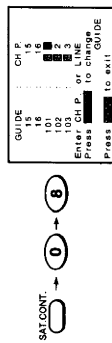
STATION NAME	VIDEO Plus+ SYSTEM SIZE CHANNEL	SKY ORDER	ASTRA ORDER	PERSONAL PREFERENCE
SKY ONE	101	1	8	
SKY NEWS	102	2	12	
SKY MOVIE MAX	103	3	16	
SKY PREMIERE	104	4	18	
THE DISNEY CHANNEL	111	5	26	
SKY BOX OFFICE 1	112	6	28	
SKY BOX OFFICE 2	113	7	30	
NICKELODEON	105	9	20	
EUROSPORT	149	29	37	
CNN	107	30	4	
	128	31	26	

\*1 Note: It is important that you check that your VIDEO Plus+ programming system is connected correctly to your satellite receiver. If the connection is not correct, the Receive offscreen VIDEO Plus+ programming system will not work correctly.

**28**

- 5** Press the **SAT.CONT.** button ("SAT" displayed), and enter a channel number on the satellite receiver using **number buttons**.

If SKY ONE is channel 8 on your satellite receiver channel selector...



- 6** To set GUIDE channels for other satellite channels, repeat steps 4 and 5.

- 7** Press the **MENU** button three times to exit.

Now you can make VIDEO Plus+ Deluxe programming system recordings of satellite channels. (See page 16.)

## 6 MANUAL SET UP

The manual procedure of Auto Set Up will help an additional TV station storing or clock resetting, etc. This VTR can store up to 99 positions for TV stations.

### Reset-Up Automatically

Use this procedure if the Auto Set Up needs to be made again, for example, after a power failure, when plugged off, or in the event of receiving stations change.

- Preparation**
- Turn on the TV, and select the video input mode or video channel if you made the aerial connection (page 10).
  - Press the VTR button to set the remote control operation your VTR.
  - If your satellite receiver is connected using an RF lead, select SKY ONE on the satellite receiver. Auto Set Up will allocate position number 6 on the VTR for the satellite output.

**1** Press the **ON/STANDBY** button to turn on the VTR.

**2** Press the **MENU** button to display the MAIN MENU screen.

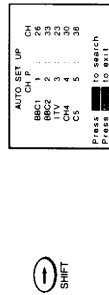


**3** Press number button **3** to select "INSTALLATION".



**4** Press number button **1** to select "AUTO SET UP".

The VTR starts automatic TV station storing and clock setting if you press the **SHIFT** (→) button.



#### Note

If "—" is shown, perform "Manual Storing of TV Stations" (page 37) for the TV station.

**5** Press the **MENU** button four times to return to the normal TV screen.

- Notes**
- If the time of the clock is not correct after this procedure, perform "Clock Setting" on this page.
  - The TV stations in tuning range numbers 2 and 3 are not stored automatically in this procedure. To receive these stations, you must store them manually. See "Manual Storing of TV Stations" on page 37.

### Clock Setting

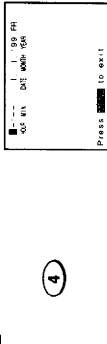
If BBC1 is stored in position number 1, the VTR automatically sets the clock, and will adjust it to the BBC1 signal at 8:00 every morning. If BBC1 is not stored in position number 1, follow the procedure below to set the clock.

The item to be set blinks. You can change the position by pressing the **SHIFT** buttons.

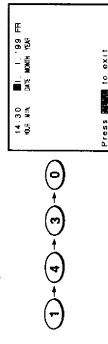
**To set the clock to 14:30 on August 25, 1999**

**1** Press the **MENU** button to display the MAIN MENU screen.

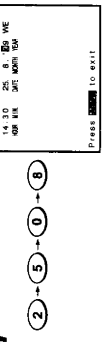
**2** Press number button **4** to select "CLOCK SET".



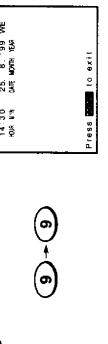
**3** Set the hours and minutes (24 hours clock format)



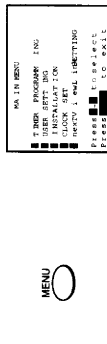
**4** Set the day and month.



**5** Set the year with its last two digits.



**6** Press the **MENU** button. Now the clock starts.



**7** Press the **MENU** button again to exit.

### Manual Storing of TV Stations

**Information**

Each TV station operating in the U.K. (e.g. BBC1, ITV) broadcasts on a unique frequency, which in turn has been allocated a transmission channel number (21 - 69). However, this unique frequency and corresponding number changes for each TV station from area to area. For example, BBC1 in London uses channel number 26, while in Oxford BBC1 uses channel number 57 (i.e., CH57). This VTR will indicate these channel numbers (1 - 9, 21 - 69) during tuning.

Tuning range number	Band	TV channel number
1	VHF	A - J (1 - 10), 11, 13
2	UHF	E2 - E12 (82 - 92)
3	CATV	E21 - E69 (21 - 69)
4	CATV	X, Y, Z (71, 72, 73)
5	CATV	1 - 53
6	CATV	(48MHz to 464MHz, 8MHz steps)
7	CATV	S1 - S41 (1 - 41)

#### Preparation

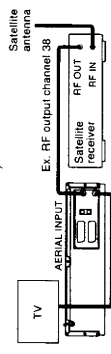
- Select the video channel or video input mode on the TV.
- Press the VTR button to set the remote control operation your VTR.
- Turn on the VTR.
- If you use a satellite receiver, make the connection correctly (page 10) and turn it on.

**To store BBC1 to position number 1 on your VTR.**

Allocation of the TV stations into the memory of the VTR is expected to be as follows, for VIDEO Plus+ Deluxe programming system recording.

- BBC1: Position number 1  
BBC2: Position number 2  
ITV: Position number 3  
CHANNEL 4: Position number 4  
CHANNEL 5: Position number 5

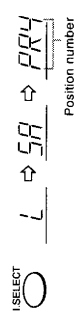
Satellite: Position number 6, example (if connected by an RF lead only as shown below.)



In this case, select position number 6 in step 5, and channel 38 in step 6 if the output channel of your satellite receiver is 38, for example. Make sure that TV receives a satellite broadcast. Whenever you watch or record a satellite programme, select position number 6.

**Important**

This procedure can be performed only when the VTR display shows a position number on the VTR. If the "L" or "SA" is displayed, press the **ISELECT** button so that the position number appears.



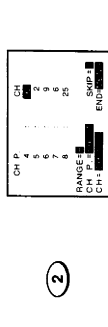
**1** Press the **MENU** button to display the MAIN MENU screen.

**2** Press number button **3** to select "INSTALLATION".

**3** Press number button **2** to select "MANUAL SET UP".

**4** Press number button **2** to select "MANUAL TUNING".

The VTR is now in the tuning mode, and the screen display appears.



**5** Press the **SHIFT** button to select position number 1.



**To change the tuning range number**  
Press number button **6** repeatedly to select a tuning range number. (See the table on left.)

**6** Press and hold the **CH/TRK** button to start searching for BBC1.

Higher numbered channel

CH/TRK

Lower numbered channel

If the received TV signal is not BBC1, press and hold the **SHIFT** button again.

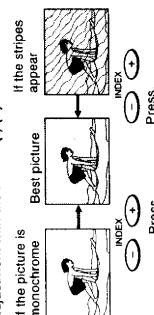
(continued)



# 6/7 MANUAL SET UP

(continued)

**7** If a clear picture does not appear on the TV screen after searching is finished, make fine adjustment with the INDEX (+) (-) buttons.



**8** Repeat steps 5 to 7 for other TV stations, and for satellite stations if your satellite receiver is not connected by a SCART.

Record all position numbers you stored on the VTR in the chart (GUIDE Channel Table) so that you will be ready to use the VIDEO Plus+ Deluxe programming system recording.

**9** Press the **MENU** button. Channel tuning is now finished.

Once station storing is done, you can select a TV programme by the position number on which the TV station is stored.

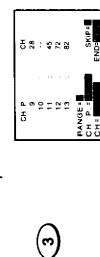
## Skipping Channels

You can prevent the use of certain position numbers.

- Set the VTR to the tuning mode following steps 1 to 4 of the station storing procedure.
- Select the position number you want to skip with the **SHIFT** button.



- Press **number button 3**. The following indication will appear in the VTR display with the skip function on or off.



If you press **number button 3** again, the TV channel number will appear and the skip function will be cancelled.

- Press the **MENU** button to exit.

**To cancel channel skipping**  
Follow steps 1) to 4) above.

## GUIDE Channel Setting for TV Channels Manually

VIDEO Plus+ Deluxe programming system is a timer recording system for an easier programming that requires you only to enter a PlusCode programming number assigned to a desired programme. This section explains the necessary set-up to make VIDEO Plus+ Deluxe programming system recordings.

### Information

You can perform timer recording very easily using the VIDEO Plus+ Deluxe programming system of this VTR. Before making a VIDEO Plus+ Deluxe programming system recording, it is necessary to set GUIDE channels in the VTR.

Clock Setting (page 38)

Manual Storing of TV Stations (page 37)

Setting to Control Satellite Channels (pages 32, 33)  
(When using a satellite receiver)

Satellite input setting  
Brand code setting

GUIDE channel setting

GUIDE channels for satellite channels are automatically set when you choose SKY or ASTRA. If you correct the setting, or if your satellite receiver is not SKY or ASTRA, use the procedure on page 33.

GUIDE Channel Setting (pages 35)  
(VIDEO Plus+ Deluxe PROGRAMMING SYSTEM SET-UP)

GUIDE Channel Setting for TV Channels Manually  
GUIDE Channel Setting for Satellite Channels

VIDEO Plus+ Deluxe PROGRAMMING SYSTEM RECORDING (page 16)

### Important

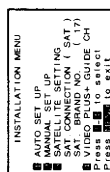
There is no need to perform this procedure if the TV stations have been stored to the position numbers (1 for BBC1, 2 for BBC2, 3 for ITV, 4 for CHANNEL 4 and 5 for CHANNEL 5) on the VTR (page 12).

### Preparation

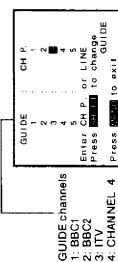
- Select the video channel or video input mode on the TV.
- Press the VTR button to set the remote control operation your VTR.

**1** Press the **MENU** button to display the MAIN MENU screen.

**2** Press **number button 3** to select "INSTALLATION".



**3** Press **number button 4** to select "VIDEO PLUS+ GUIDE CH".



GUIDE channels 1 to 5 have been factory set to position numbers 1 to 5 respectively. Make sure that the numbers are matched as above.

### Note

To set another TV channel, select the GUIDE channel using the SHIFT button, and in the "CH P." column, enter the position number in which you have stored the TV station by number buttons.

**4** Press the **MENU** button three times to exit. The GUIDE channel setting for TV channels is complete.

Now you can make a VIDEO Plus+ Deluxe programming system recording of TV programmes. (See page 16.)

If you use a satellite receiver, make the GUIDE channel setting for satellite channels as well.

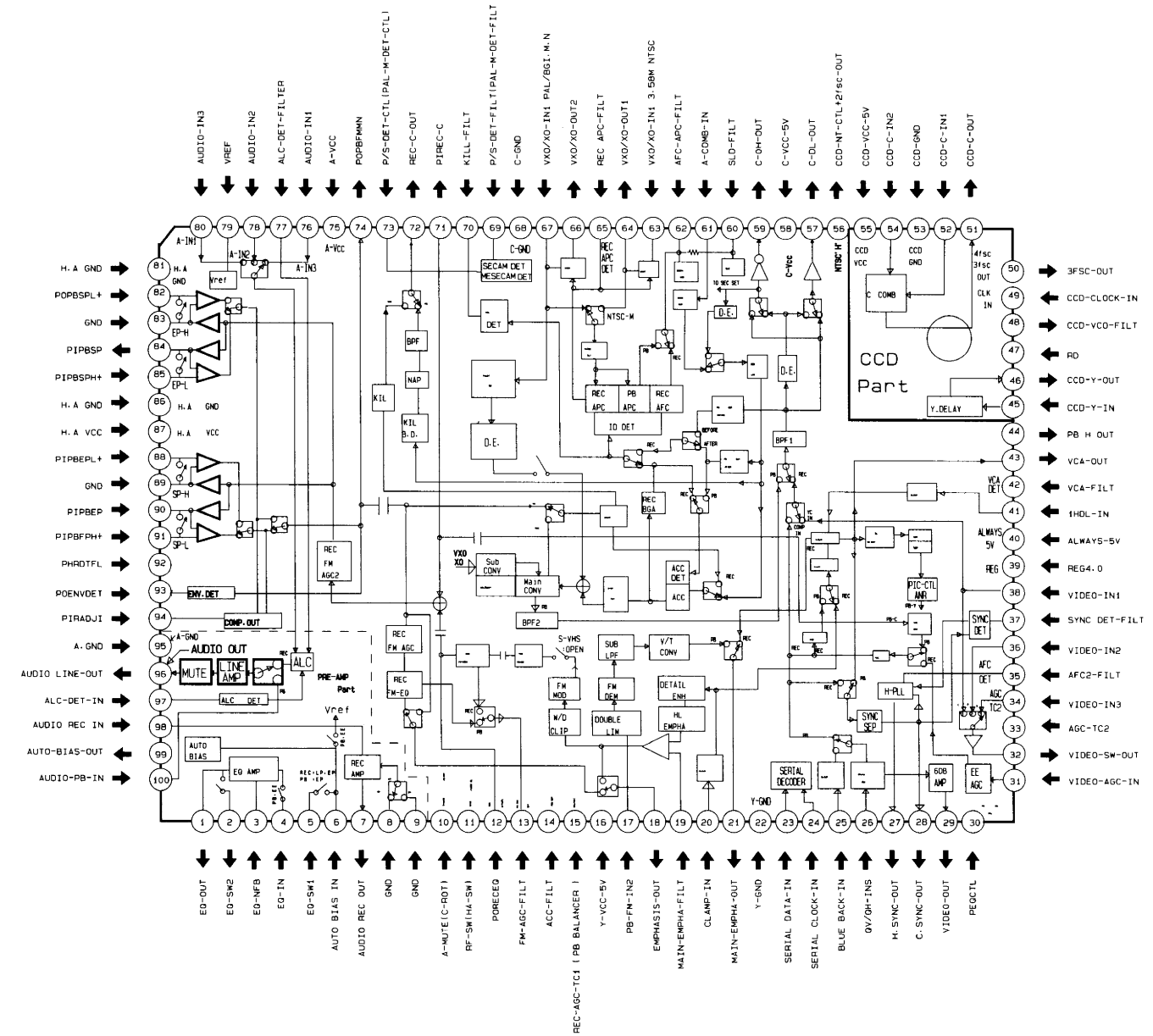
## GUIDE Channel Table

TV stations	GUIDE	VIDEO Plus+ SYSTEM GUIDE CHANNEL	SKY ORDER	ASTRA ORDER	PERSONAL REFERENCE
BBC1	001	101	1	1	1
BBC2	002	102	2	2	2
ITV	003	103	3	3	3
CHANNEL 4	004	104	4	4	4
CHANNEL 5	005	105	5	5	5
EUROSPORT	006	106	6	6	6
NETWORK 2 (IRELAND)	007	107	7	7	7
STATION NAME					
SKY ONE		101	1	1	1
SKY NEWS		102	2	2	2
SKY NEWS MAX		103	3	3	3
SKY PREMIERE		104	4	4	4
THE DISNEY CHANNEL		111	5	26	26
SKY BOX OFFICE 1		111	5	26	26
SKY SPORT 1		105	6	20	20
NICKELODEON		106	7	46	46
PARAMOUNT COMEDY CH.		106	7	46	46
TEST TUBES		125	8	42	42
TRAVEL		125	8	42	42
BRAVO		125	8	42	42
DISCOVERY HOME & LEISURE		124	9	41	41
DISCOVERY		124	9	41	41
UK GOLD		123	11	23	23
OVG		136	12	38	38
LIVING		136	12	38	38
THE FANTASY CHANNEL		130	13	34	34
MTV		109	14	15	15
VH1		145	15	22	22
SKY SPORTS 2		140	16	47	47
SKY SPORTS 3		148	17	31	31
PLAYBOY CHANNEL		148	17	31	31
TV SHOP		148	17	31	31
NATIONAL GEOGRAPHIC		119	18	7	7
GRANADA PLUS		131	19	3	3
MEN & MOTORS		131	19	3	3
WEATHER		127	20	60	60
RACING		127	20	60	60
SKY BOX OFFICE 2		127	20	60	60
SKY BOX OFFICE 3		127	20	60	60
SKY SCOTLAND		132	21	59	59
GRANADA GOOD LIFE		142	22	58	58
COMPUTER CHANNEL		142	22	58	58
SKY BOX OFFICE 4		142	22	58	58
CMT		138	24	51	51
CHRISTIAN CHANNEL		122	26	24	24
SOAP		122	26	24	24
ROCKY		122	26	24	24
SOUL		122	26	24	24
TRAVEL		129	27	60	60
SKY CINEMA		129	27	60	60
CARTOON NETWORK		149	29	37	37
TNT		149	29	37	37
EUROSPORT		107	30	28	28
CNN		128	31	28	28

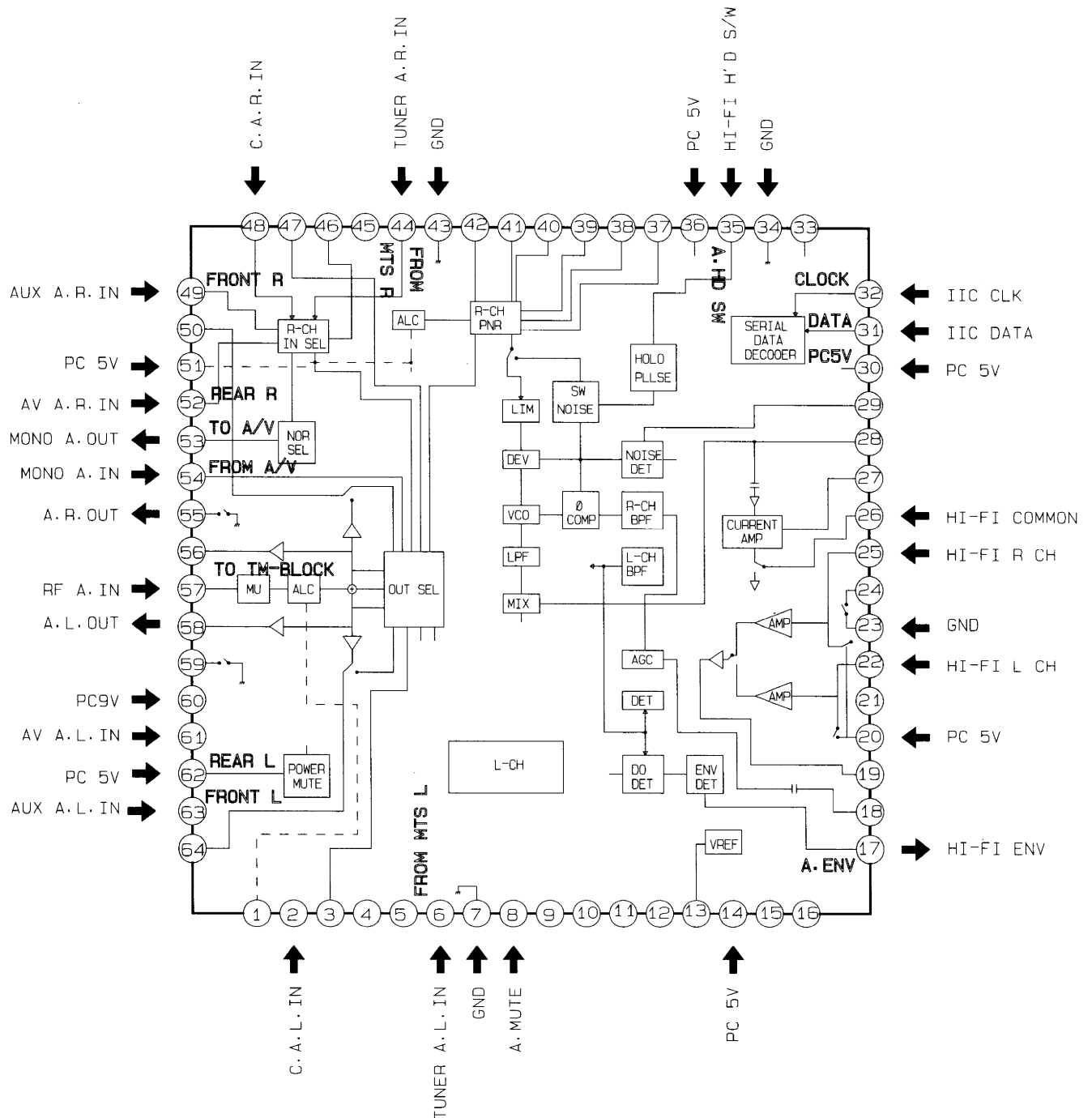
\*1 Note: It is important that you check that your VIDEO Plus+ programming system Guide channel order stored on your VTR is the same order as your Satellite Receiver otherwise VIDEO Plus+ programming system will not work correctly.

## 2-2 IC Blocks

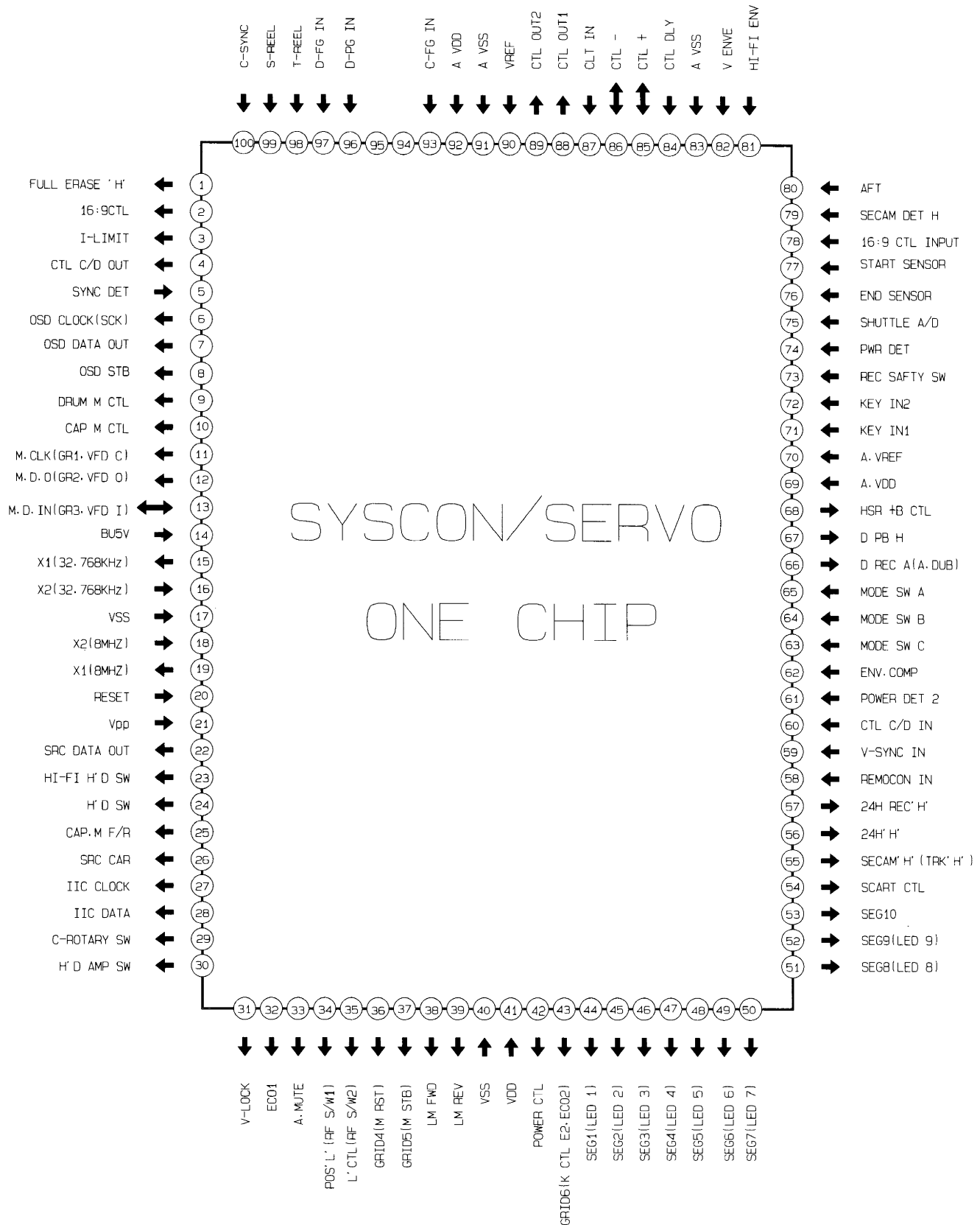
### 2-2-1 IC301 (LA71590M)



## 2-2-2 IC501 (LA72634AM)



## 2-2-3 IC601 (uPD784927GF)



### 3. Product Specifications

Specifications and features are subject to change without notice.

OPERATION	DESCRIPTION
Power supply	230V/240V ("B" Models), 230V ("F/G/W" Models) AC, 50Hz
Power consumption	18 Watts (Hi-Fi Models), 16 Watts (Non Hi-Fi Models)
External dimensions	360 (W) x 94 (H) x 298 (D) mm
Mass	4.2 kg
Receiving channels	B : VHF A-J (IRE), UHF 21-69, CATV X, Y, Z S1-41 G : VHF E2-12 R2-12 A-H, UHF 21-69, CATV X, Y, Z S1-41 F : VHF E2-12 F1-6 FB-FC, UHF E21-69, CATV X, Y, Z B-Q S1-41 70-92 W : VHF E2-12 R2-12 A-H, UHF 21-69, CATV X, Y, Z S1-41
Format	VHS standard
Video signal system	CCIR 625 lines, 50 fields, PAL colour signal, 525 lines NTSC colour (PB only)
Recording system/Playback system	B : PAL SP, LP VHS format G/W : PAL/MESECAM SP, LP VHS format F : PAL/MESECAM/SECAM SP, LP VHS format PAL/MESECAM/SECAM SP VHS format (V-229F/V-219F)
NTSC playback	NTSC SP/SLP tape playback : NT4.43/NT PB ON PAL TV (V-229F/V-219F is SP only)
Fast forward/Rewind time	Within approx. 150s (When E-180 video cassette is used)
Aerial input/output	75 ohm coaxial
Video input/output	AUDIO/VIDEO SCART socket, 1.0Vp-p, 75ohm
Audio input	AUDIO/VIDEO SCART socket, more than 1.0Kohm
Audio output	AUDIO/VIDEO SCART socket, less than 1.0Kohm
Audio frequency range	20Hz - 20KHz (Hi-Fi model only)
Operating conditions	Temperature : +5°C - +40°C Humidity : less than 80% RH

## 4. Disassembly and Reassembly

### 4-1 Cabinet Assembly

#### 4-1-1 Cabinet Top Removal

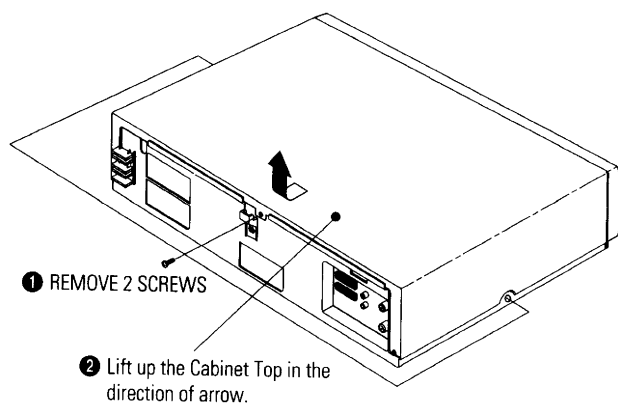


Fig. 4-1 Cabinet Top Removal

#### 4-1-2 Bottom Cover Removal

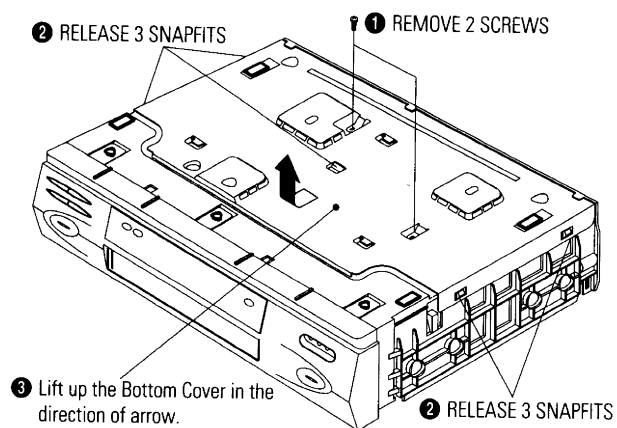


Fig. 4-2 Bottom Cover Removal

#### 4-1-3 Ass'y Front Panel Removal

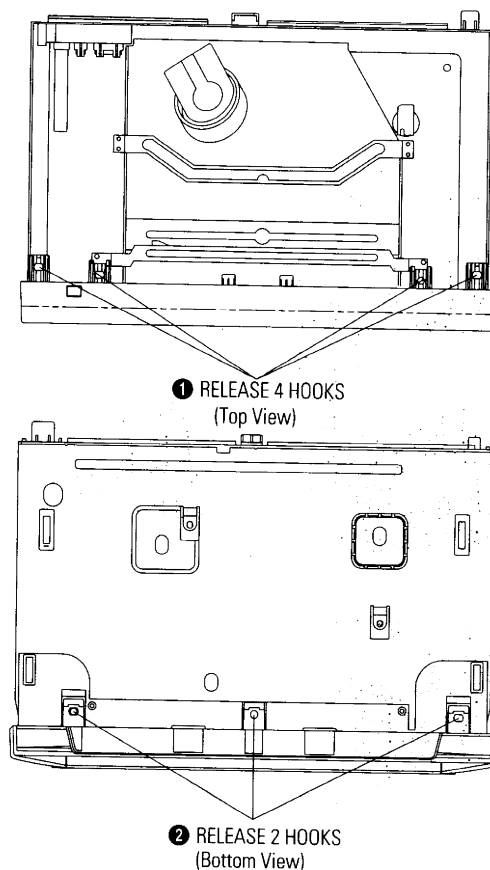


Fig. 4-3 Ass'y Front Panel Removal

#### 4-1-4 Jack PCB Removal

Disconnect the CN701 from the Main PCB and then lift the Jack PCB up.

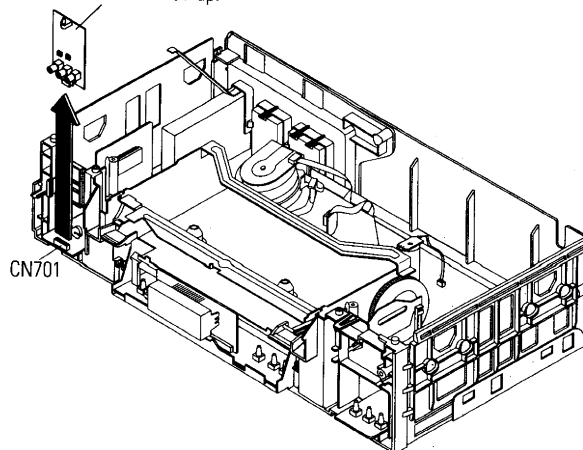


Fig. 4-4 Jack PCB Removal

## 4-1-5 Chassis Removal

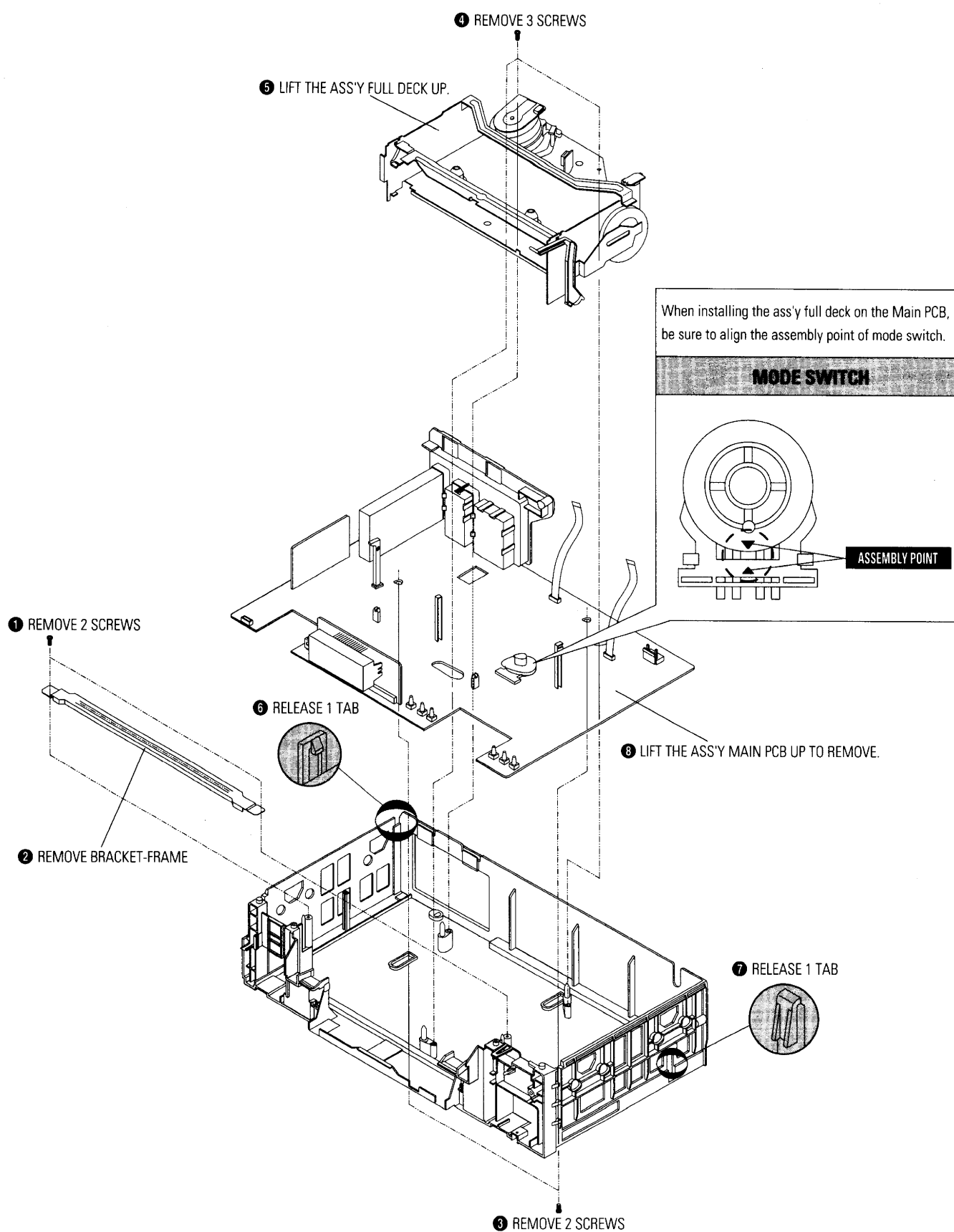


Fig. 4-5 Chassis Removal

## 4-2 Deck Parts Locations

### 4-2-1 Top View

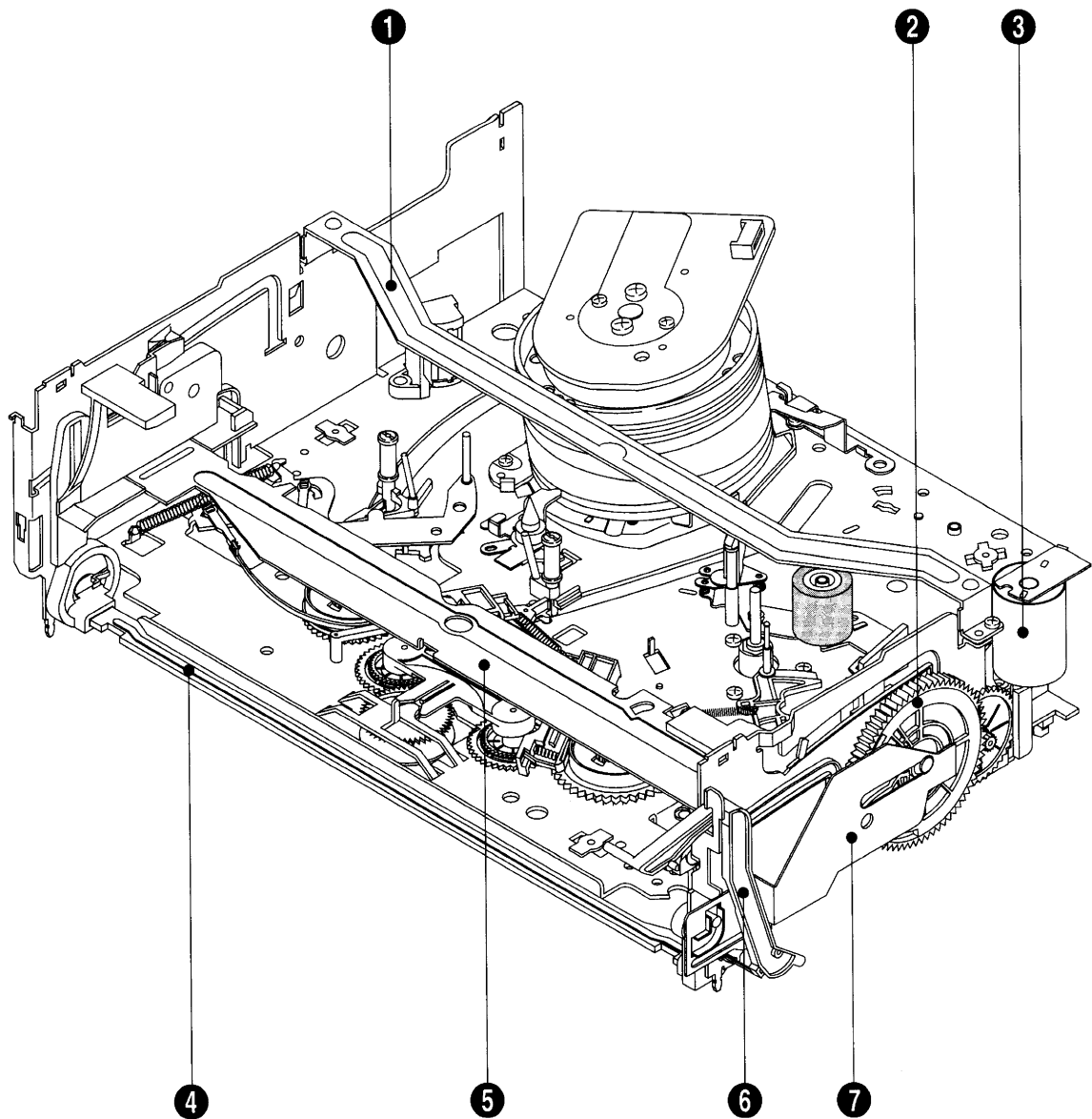


Fig. 4-6 Top parts Location-1

- ① BRACKET FL TOP
- ② GEAR FL CAM
- ③ MOTOR LOADING ASS'Y
- ④ LEVER FL ARM ASS'Y
- ⑤ HOLDER FL CASSETTE ASS'Y
- ⑥ LEVER FL DOOR
- ⑦ SLIDER FL DRIVE



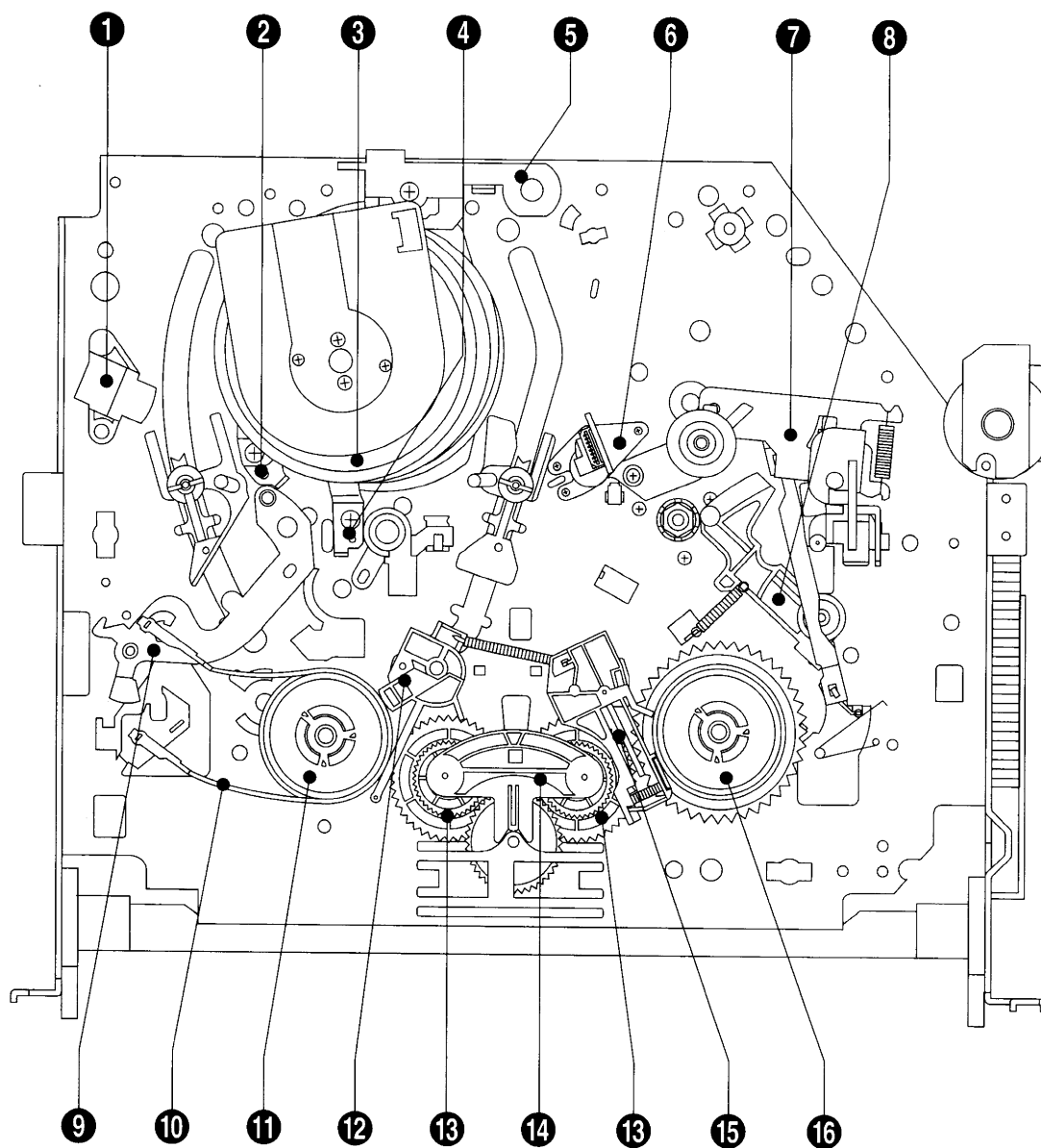


Fig. 4-7 Top Parts Location-2

- ❶ FE HEAD
- ❷ PLATE CYLINDER C
- ❸ CYLINDER ASS'Y
- ❹ PLATE CYLINDER B
- ❺ PLATE CYLINDER A
- ❻ ACE HEAD ASS'Y
- ❼ UNIT PINCH ASS'Y
- ❽ LEVER #9 GUIDE ASS'Y
- ❾ LEVER TENSION ASS'Y

- ❿ BAND BRAKE ASS'Y
- ⓫ DISK S REEL
- ⓬ LEVER S BRAKE ASS'Y
- ⓭ GEAR IDLE
- ⓮ LEVER IDLE
- ⓯ LEVER T BRAKE ASS'Y
- ⓰ DISK T REEL

## 4-2-2 Bottom View

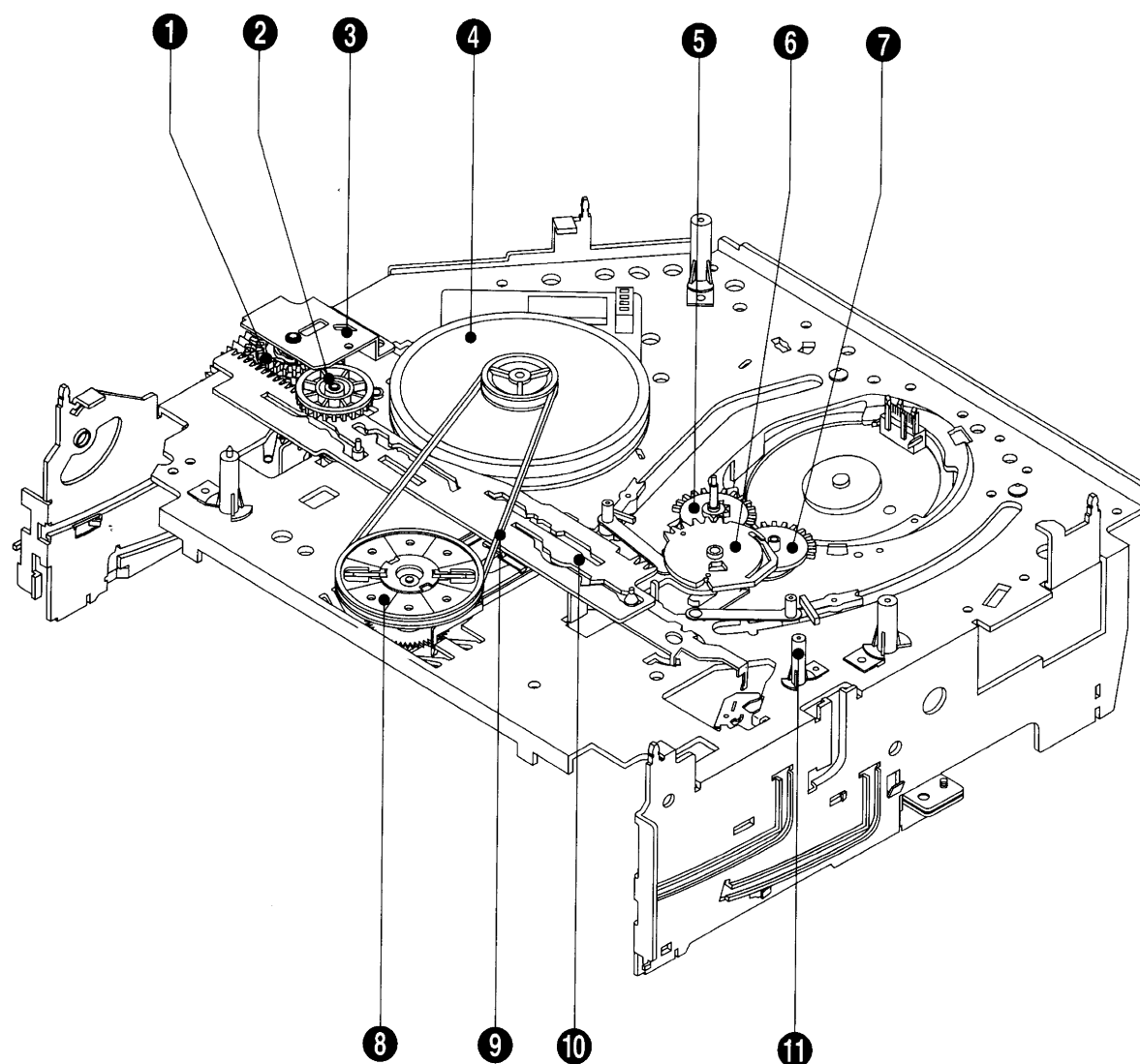


Fig. 4-8 Bottom Parts Location

- ❶ GEAR JOINT 1
- ❷ GEAR JOINT 2
- ❸ BRACKET GEAR
- ❹ MOTOR CAPSTAN ASS'Y
- ❺ LEVER T LOAD ASS'Y
- ❻ GEAR LOADING DRIVE
- ❼ LEVER S LOAD ASS'Y
- ❽ HOLDER CLUTCH ASS'Y
- ❾ BELT PULLEY
- ❿ SLIDER CAM
- ⓫ SLEEVE TENSION

## 4-3 Main Deck

### 4-3-1 Bracket FL Top Removal

- 1) Remove 2 screws ❶.
- 2) Remove the Bracket FL Top ❷.

**Note :** Take care not to change assembly direction.

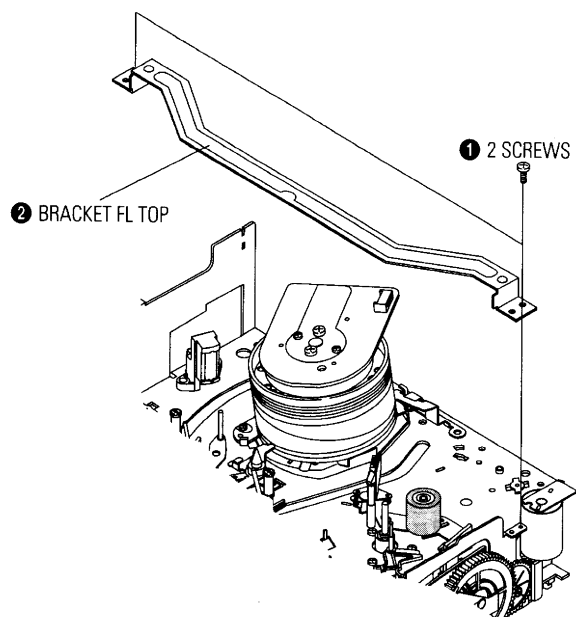


Fig. 4-9 Bracket FL Top Removal

### 4-3-2 Lever FL Door Removal

- 1) Rotate the Lever FL Door ❶ in the direction of arrow "A".
- 2) Release the Hook ❷, remove the Lever FL Door ❶ in the direction of arrow "B".

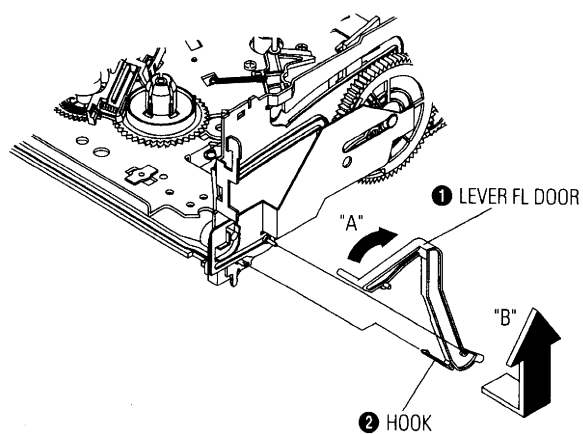


Fig. 4-10 Lever FL Door Removal

### 4-3-3 Holder FL Cassette Ass'y Removal

- 1) Remove the Lever FL Door. (Refer to Fig. 4-10)
- 2) Pull the Holder FL Cassette Ass'y ❶ to the eject position.
- 3) Pull the Holder FL Cassette Ass'y ❶ as grasping the Holder FL Cassette Ass'y ❶ and Lever FL Cassette-R ❷ in the same time to release hooking from Main Base until the Boss [A], [B] of Holder FL Cassette Ass'y ❶ is taken out from the Rail [C], [D].
- 4) Lift the Holder FL Cassette Ass'y ❶ in the direction of arrow "B" in this time, you have to grasp the Lever FL Cassette-R ❷ continuously until the Holder FL Cassette Ass'y ❶ is taken out completely.

**Note :** Be sure to insert Lever FL Cassette-R ❷ in the direction of "A" to prevent separation and breakage of the Lever FL Cassette-R ❷ at disassembling and reassembling.

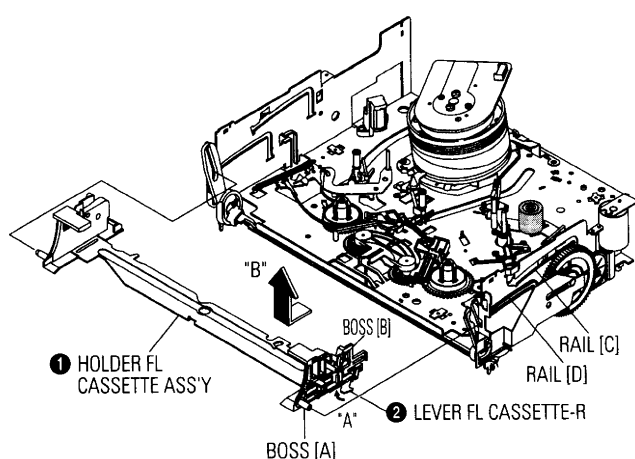


Fig. 4-11 Holder FL Cassette Ass'y Removal

### 4-3-4 Lever FL Arm Ass'y Removal

- 1) Remove the Lever FL Door. (Refer to Fig. 4-10)
- 2) Remove the Holder FL Cassette Ass'y. (Refer to Fig. 4-11)
- 3) Release the Hook ❶ in the direction of arrow "A", pull out the Lever FL Arm Ass'y ❷ from the Boss of Main Base.
- 4) Remove the Lever FL Arm Ass'y ❷ in the direction of arrow "B".

**Assembly :** When reinstalling, be sure to reassemble Lever FL Arm Ass'y ❷ after you insert the Boss ❷ in Groove [A] of Slider FL Drive ❸.

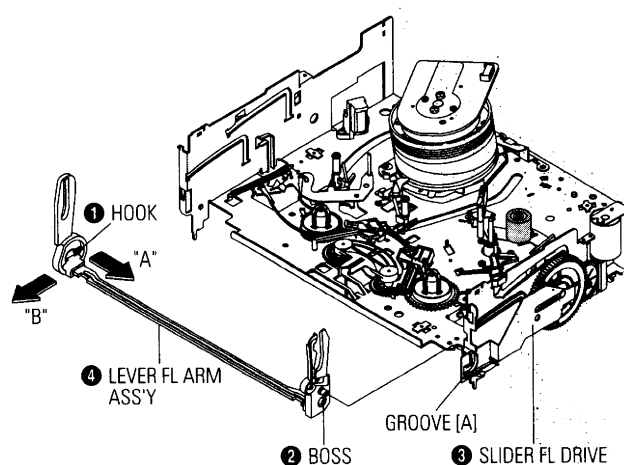


Fig. 4-12 Lever FL Arm Ass'y Removal

### 4-3-5 Slider FL Drive Removal

- 1) Pull the Slider FL Drive ❶ to the front direction.
- 2) Remove the Slider FL Drive ❶ in the direction of arrow. (Refer to Fig. 4-13)

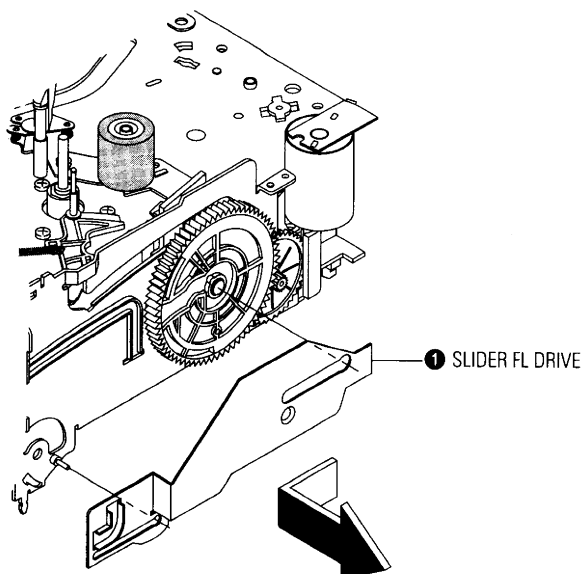


Fig. 4-13 Slider FL Drive Removal

### 4-3-6 Bracket Gear, Gear FL Cam, Gear Joint 1, 2 Removal

- 1) Remove screw ❶.
- 2) Lift the Bracket Gear ❷.
- 3) Remove the Gear FL Cam ❸.
- 4) Lift the Gear Joint 2 ❹, Gear Joint 1 ❺.

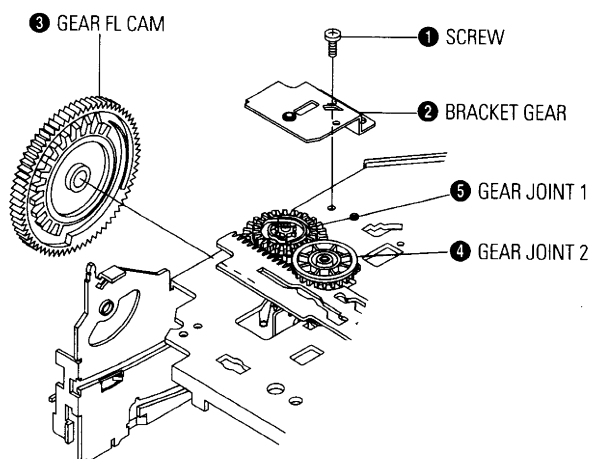


Fig. 4-14 Bracket Gear, Gear FL Cam, Gear Joint 1, 2 Removal

### 4-3-7 Assembly of Gear FL Cam, Gear Joint 1, 2

- 1) Be sure to align dot mark of Gear Joint 1 ❶ with dot mark of Gear Joint 2 ❷ as shown Fig. 4-15 (Refer to Timing Point 1), confirm the Timing Point 2 of the Gear Joint 2 ❷ and Slider Cam ❸.
- 2) Align the Gear FL Cam ❹ with the Gear Worm Wheel Post as shown detail drawing. (Refer to Timing Point 3)

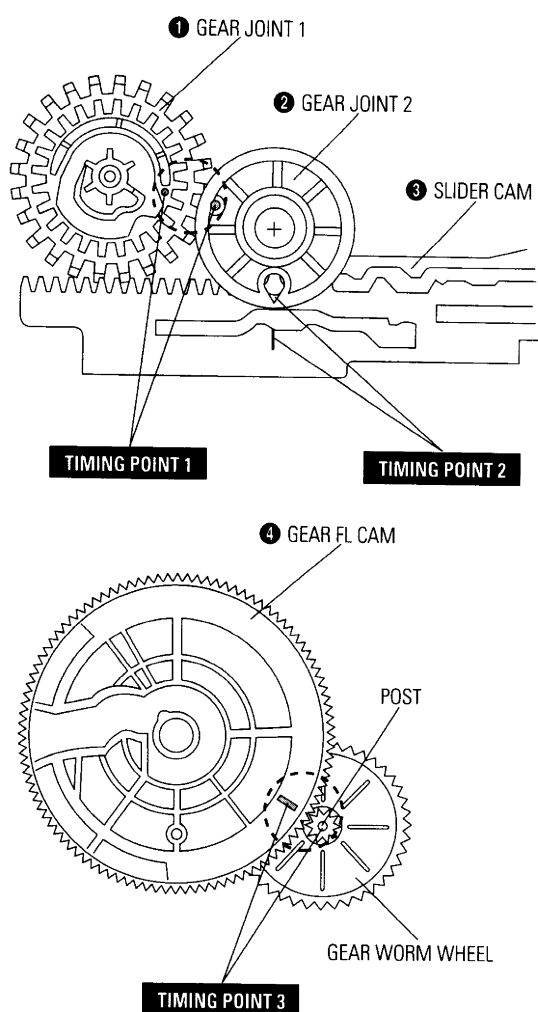


Fig. 4-15 Assembly of Gear FL Cam, Gear Joint 1, 2

### 4-3-8 Holder Worm, Gear Worm, Gear Worm Wheel Removal

- 1) Release the Hook [A] in the direction of arrow and, remove the Holder Worm ❶.
- 2) Remove the Gear Worm ❷.
- 3) Remove the Gear Worm Wheel ❸. (After removing the Gear FL Cam as shown Fig. 4-14)

**Note :** Secure the Hook [A] after installing the Holder Worm ❶.

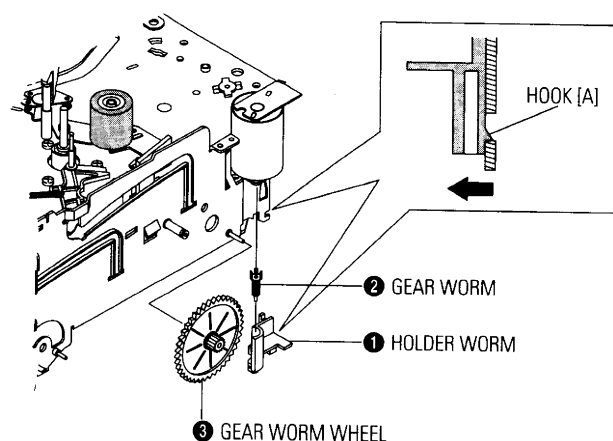


Fig. 4-16 Holder Worm, Gear Worm, Gear Worm Wheel Removal

### 4-3-9 Motor Loading Ass'y Removal

- 1) Remove the screw ❶.
- 2) Remove the Motor Loading Ass'y ❷.

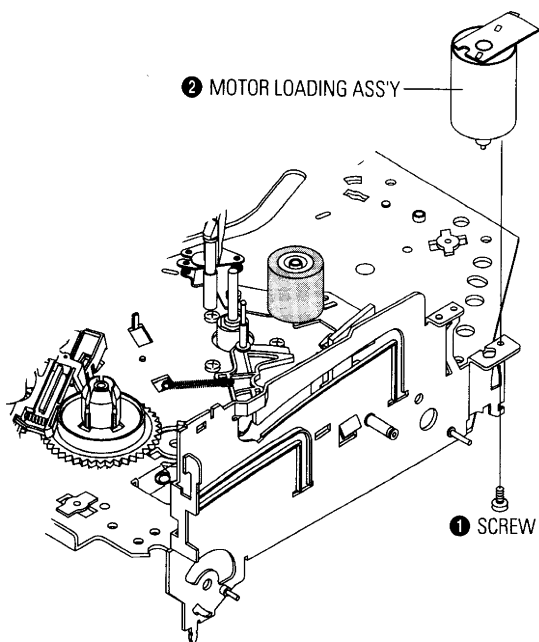


Fig. 4-17 Motor Loading Ass'y Removal

### 4-3-10 Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y Removal

- 1) Remove the Belt Pulley. (Refer to Fig. 4-34)
- 2) Remove the Gear Loading Drive ❶ after releasing Hook [A] in the direction arrow as shown in detail drawing.
- 3) Remove the Slider Cam ❷.
- 4) Remove the Lever T, S Load Ass'y ❸, ❹.

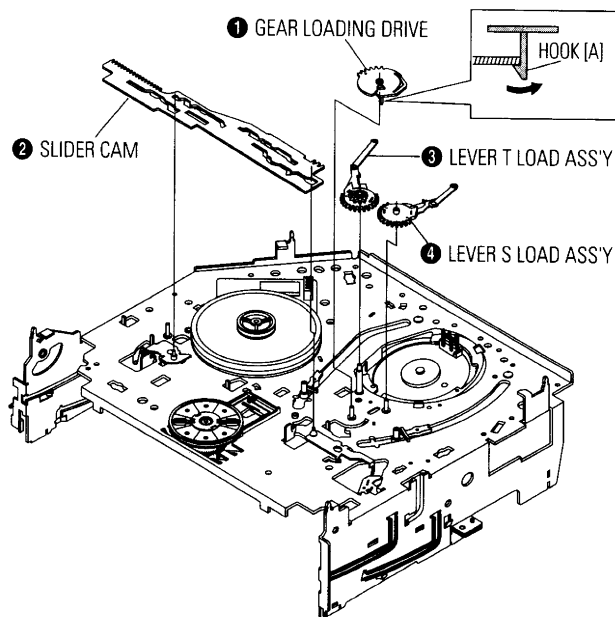


Fig. 4-18 Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y Removal

### 4-3-11 Assembly of Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y

- 1) When reinstalling, be sure to align dot of Lever T Load Ass'y ① with dot of Lever S Load Ass'y ② as shown in drawing. (Refer to Timing Point 1)
- 2) Insert the Pin A, B, C, D into the Slider Cam ③ hole.
- 3) Be sure to align dot of Lever T Load Ass'y and dot of Gear Loading Drive ④. (Refer to Timing Point 2)
- 4) Align dot of Gear Loading Drive with mark of Slider Cam as shown in drawing. (Refer to Timing Point 3)

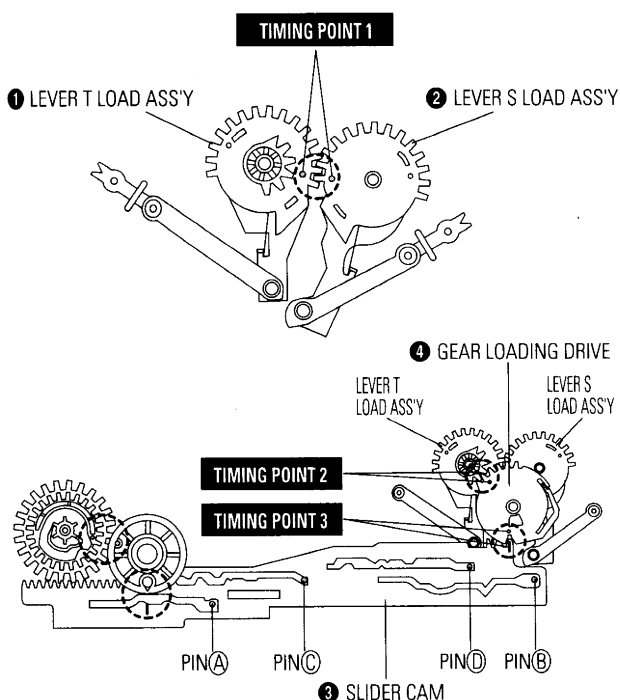


Fig. 4-19 Assembly of Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y

### 4-3-12 Lever Tension Ass'y, Band Brake Ass'y, Sleeve Tension Removal

- 1) Remove the Spring Tension ①.
- 2) In bottom side of Deck, remove the Sleeve Tension ② after rotating it right or left as lifting locking edge of Sleeve Tension.
- 3) Remove the side "a" of the Band Brake Ass'y ④ in the direction of arrow "A" from the Lever Tension Ass'y ③.
- 4) Remove the side "b" of the Band Brake Ass'y ④ in the direction of arrow "B" from the Main Base.

#### Note :

- 1) When replacing the Lever Tension Ass'y, be sure to apply oil in the Sleeve Tension.
- 2) Take care not to touch stain on the felt side, and not to be folded and broken Band Brake Ass'y.

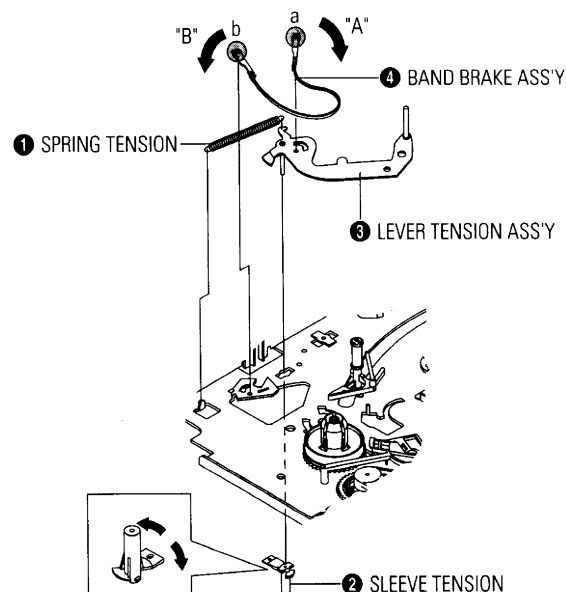


Fig. 4-20 Lever Tension Ass'y, Band Brake Ass'y, Sleeve Tension Removal



### 4-3-13 Lever S, T Brake Ass'y Removal

- 1) Release the Hook [A] and the Hook [B], [C] in the direction of arrow as shown in Fig. 4-21.
- 2) Lift the Lever S, T Brake Ass'y ①, ② with Spring Brake ③.

#### Assembly :

- 1) Assembly the Lever S Brake Ass'y ① on the Main Base.
- 2) Assembly the Lever T Brake Ass'y ② with Spring Brake ③.

**Note :** Take extreme care not to be folded and transformed spring Brake at removing or reinstalling.

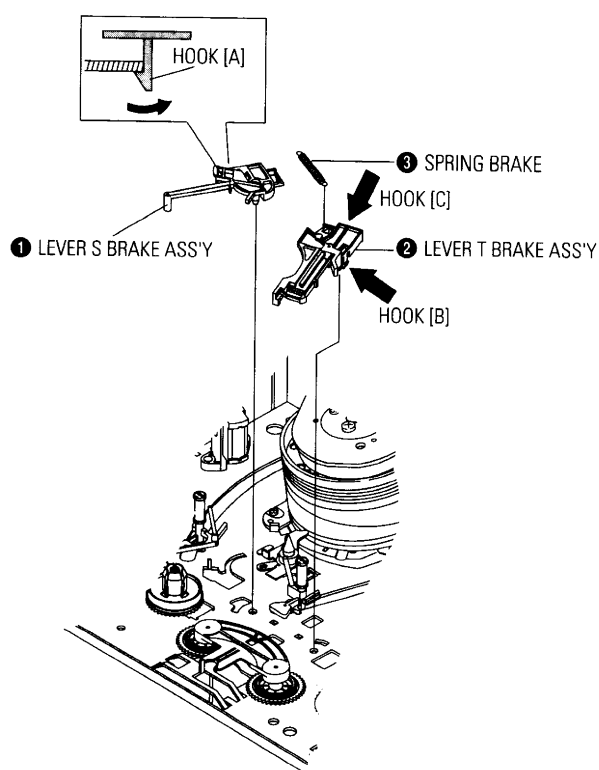


Fig. 4-21 Lever S, T Brake Ass'y Removal

### 4-3-14 Lever Idle Ass'y Removal

- 1) Push the Lever Idle ① in the direction of arrow "A", "B".
- 2) Lift the Lever Idle ①.

#### Assembly :

- 1) Apply oil in two Bosses of Lever Idle ①.
- 2) Assemble the Gear Idle ② with the Lever Idle ①.

**Note :** When replacing the Gear Idle ②, be sure to add oil in the boss of Lever Idle ①.

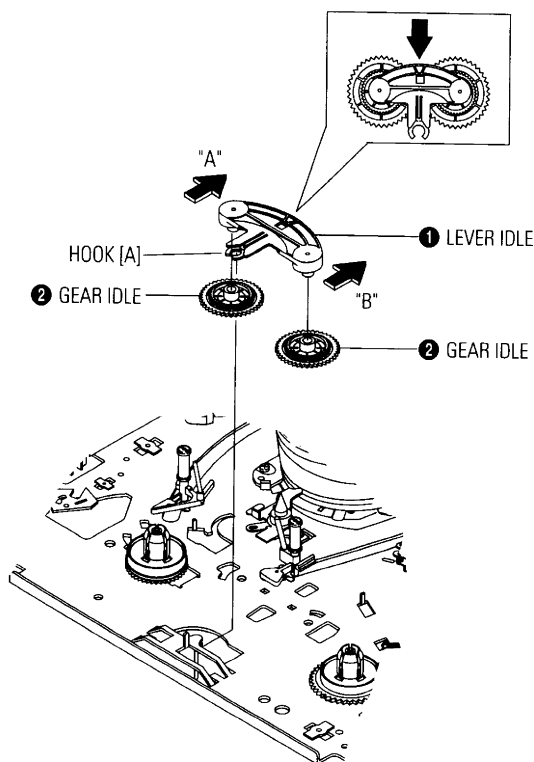


Fig. 4-22 Lever Idle Ass'y Removal

### 4-3-15 Disk S, T Reel Removal

- 1) Lift the Disk S, T Reel ❶, ❷.

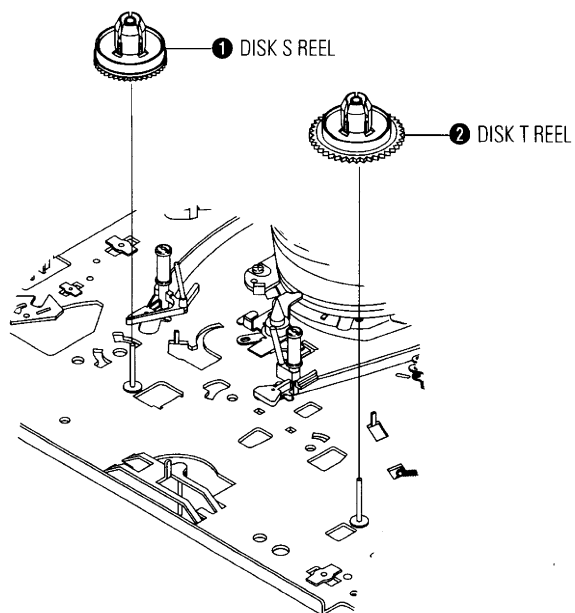


Fig. 4-23 Disk S, T Reel Removal

### 4-3-16 Holder Clutch Ass'y Removal

- 1) Remove the Washer Slit ❶.
- 2) Lift the Holder Clutch Ass'y ❷.

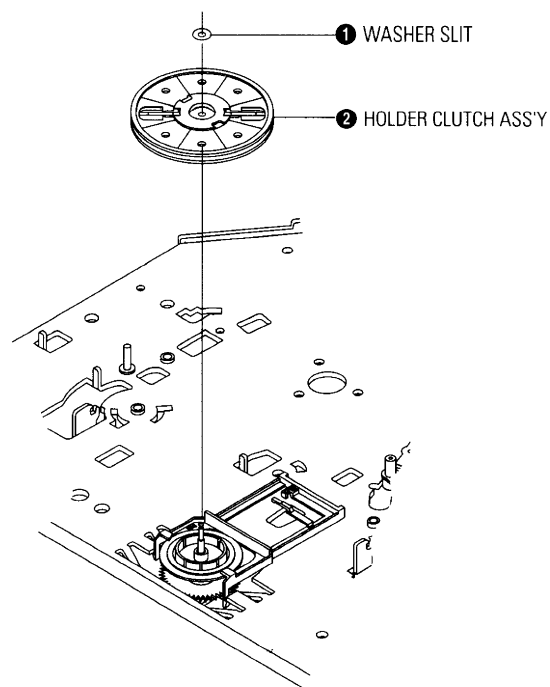


Fig. 4-24 Holder Clutch Ass'y Removal

### 4-3-17 Lever Up Down Ass'y, Gear Center Ass'y Removal

- 1) Remove the 2 hooks in the direction of arrow as shown Fig. 4-25 and lift the Lever Up Down Ass'y ①.
- 2) Lift the Gear Center Ass'y ②.

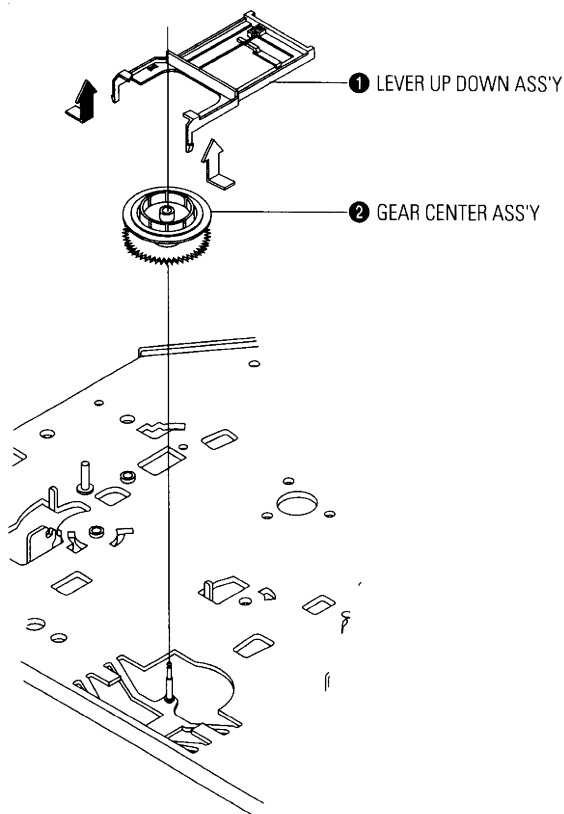


Fig. 4-25 Lever Up Down Ass'y, Gear Center Ass'y Removal

### 4-3-18 Assembly of Lever Up Down Ass'y, Gear Center Ass'y

- 1) Insert the Lever Up Down Ass'y ① in the 2 rectangular holes on Main Base.
- 2) Lift the Lever Up Down Ass'y ① about 35 degree. (Refer to Fig. 4-26)
- 3) Insert Ring ④ of the Gear Center Ass'y ② in the Guide ⑤ of the Lever Up Down Ass'y ①.
- 4) Insert the Gear Center Ass'y ② in the post ⑥ on Main Base.
- 5) Push down the Lever Up Down Ass'y ① for locking of the Hook ⑦.

**Note :**

- 1) Take care not to separate and loose the Spring Up Down.
- 2) When assembling the Gear Center Ass'y, don't push down too much.

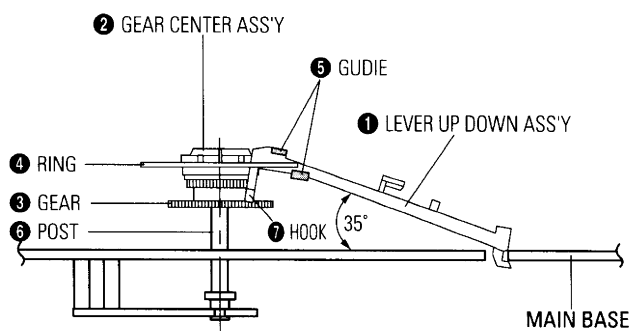


Fig. 4-26 Assembly of Lever Up Down Ass'y, Gear Center Ass'y

### 4-3-19 Guide Cassette Door Removal

- 1) Lift the Hook [A].
- 2) Rotate the Guide Cassette Door ❶ in the direction of arrow.

**Note :** After reinstalling the Guide Cassette Door ❶ secure the Hook [A].

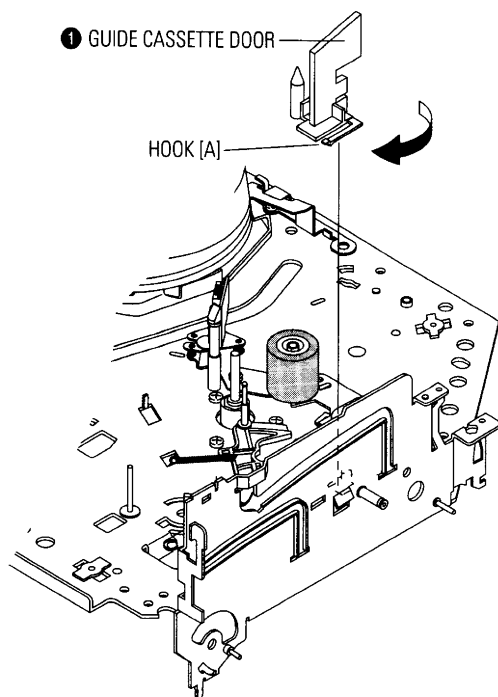


Fig. 4-27 Guide Cassette Door Removal

### 4-3-20 Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

- 1) Lift the Unit Pinch Ass'y ❶.
- 2) Remove the Plate Joint ❷ from Lever Pinch Drive.
- 3) Remove the Spring Pinch Drive ❸.

**Note :**

- 1) Take extreme care not to touch the grease on the Roller Pinch.
- 2) When reinstalling, be sure to apply grease on the post pinch roller.

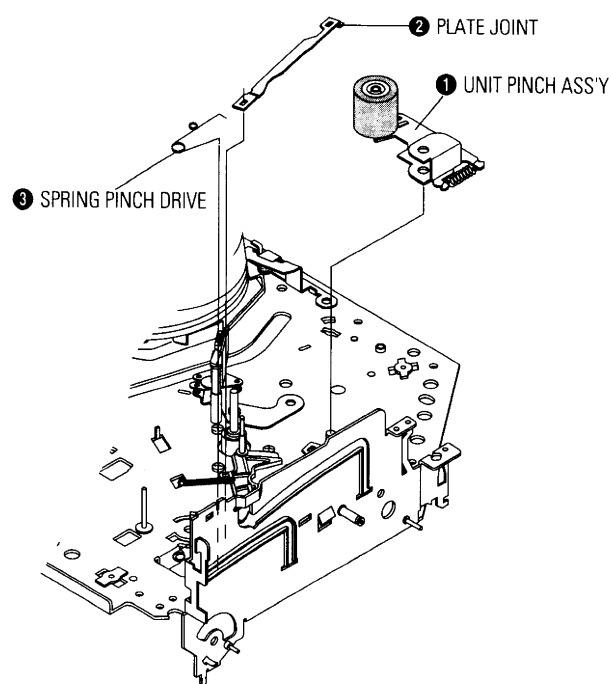


Fig. 4-28 Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

#### 4-3-21 Lever #9 Guide Ass'y Removal

- 1) Remove the Spring #9 Guide ❶.
- 2) Lift the Lever #9 Guide Ass'y ❷ in the direction of arrow.

**Note :**

- 1) Take extreme care not to touch the grease on the tape Guide Post.
- 2) After reinstalling, check the bottom side of the Post #9 Guide to stick to the top side of Main Base.

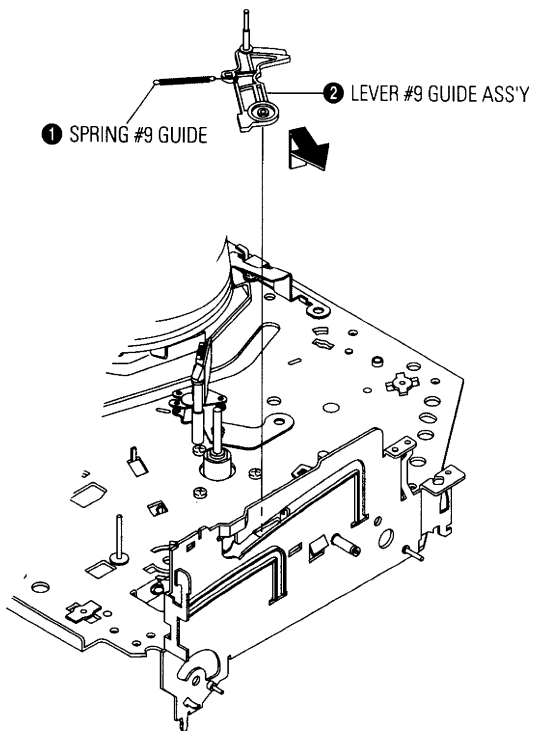


Fig. 4-29 Lever #9 Guide Ass'y Removal

#### 4-3-22 FE Head Removal

- 1) Remove the screw ❶.
- 2) Lift the FE Head ❷.

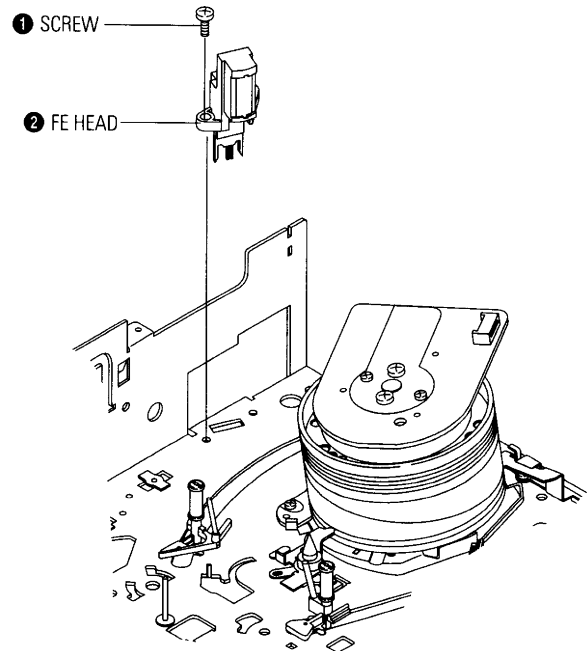


Fig. 4-30 FE Head Removal

### 4-3-23 ACE Head Removal

- 1) Pull out the FPC from connector of ACE Head Ass'y ②.
- 2) Remove the screw ①.
- 3) Lift the ACE Head Ass'y ②.

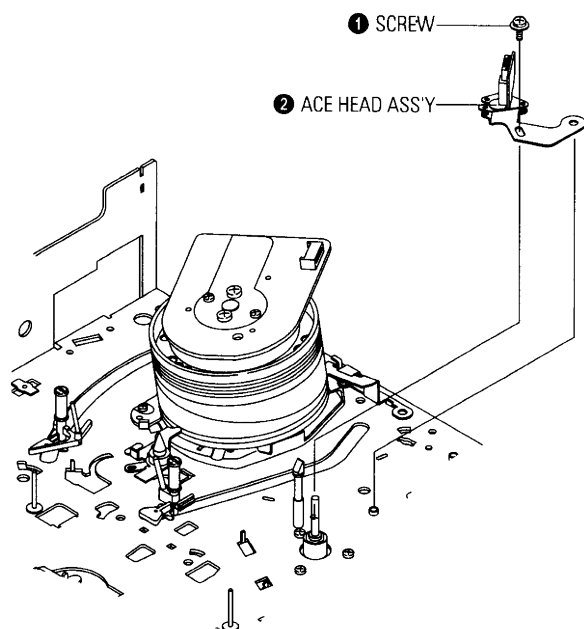


Fig. 4-31 ACE Head Removal

### 4-3-24 Slider S, T Ass'y Removal

- 1) Move the Slider S, T Ass'y ①, ② to slot, and then lift it to remove. (Refer to arrow)

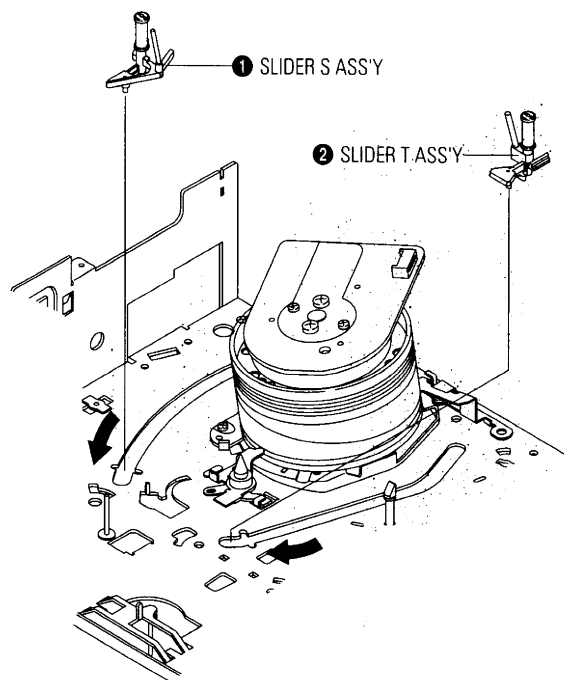


Fig. 4-32 Slider S, T Ass'y Removal

### 4-3-25 Cylinder Ass'y Removal

- 1) Remove the 3 Screws ❶, ❸, ❺.
- 2) Remove the Plate Cylinder A, B, C ❷, ❹, ❻ in the direction of arrow.
- 3) Lift the Cylinder Ass'y ❼.

**Note :**

- 1) When reinstalling, push the Plate Cylinder A, B ❹, ❻ in the reverse of arrow and then, tighten the 2 Screws ❸, ❺.
- 2) Take care not to touch the Cylinder Ass'y and the tape guide post at reinstalling Plate Cylinder C ❷.
- 3) Take care not to touch the Cylinder Ass'y with screw driver at reinstalling the Plate Cylinder C ❷.

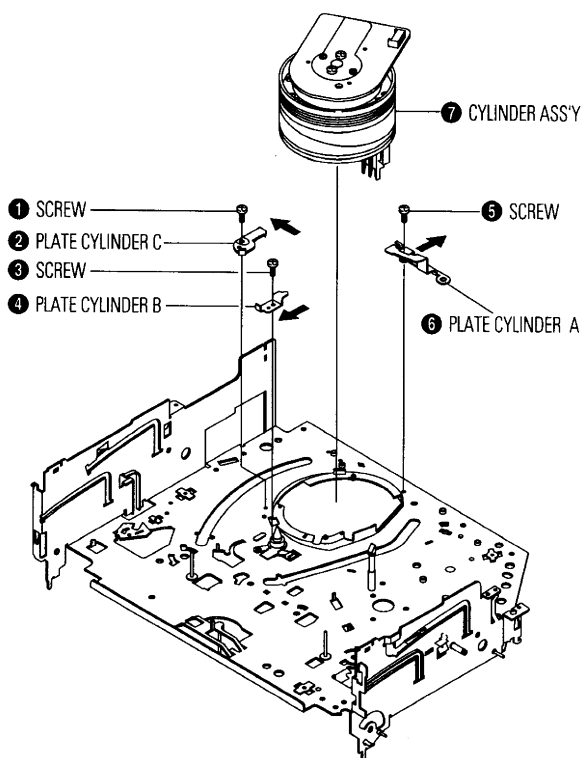


Fig. 4-33 Cylinder Ass'y Removal

### 4-3-26 Belt Pulley Removal

- 1) Remove the Belt Pulley ❶.

**Note :** Take extreme care not to touch the grease on Belt Pulley ❶ at assembling or reassembling.

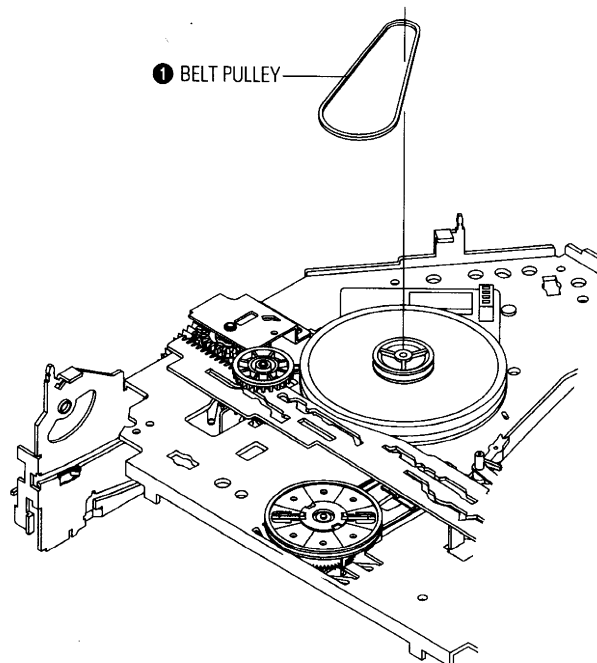


Fig. 4-34 Belt Pulley Removal

### 4-3-27 Lever Head Cleaner Ass'y Removal

- 1) Release the Hook ❶.
- 2) Lift the Lever Head Cleaner Ass'y ❷.

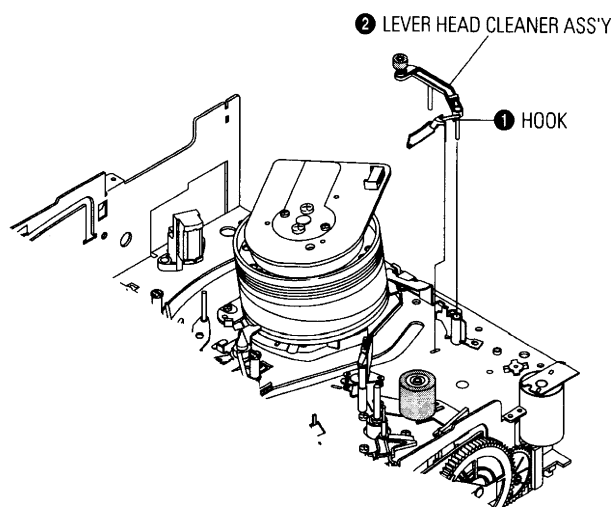


Fig. 4-35 Lever Head Cleaner Ass'y Removal

### 4-3-28 Motor Capstan Ass'y Removal

- 1) Remove the 3 Screws ❶.
- 2) Remove the Motor Capstan Ass'y ❷.

#### Assembly :

- 1) Match the 3 holes of Motor Capstan Ass'y ❷ to the 3 holes of Main Base as attending not to drop or knock the Motor Capstan Ass'y.
- 2) Tighten the 3 Screws in the direction of arrow as shown detail drawing.

#### Note :

- 1) Don't reuse the removed screws from Motor Capstan Ass'y.
- 2) After tightening screws, check if there is gap between the head of screws and the top side of Main Base. There should have no gap between the head of screws and the top side of Main Base.
- 3) After reinstalling, adjusting the tape transport system again.

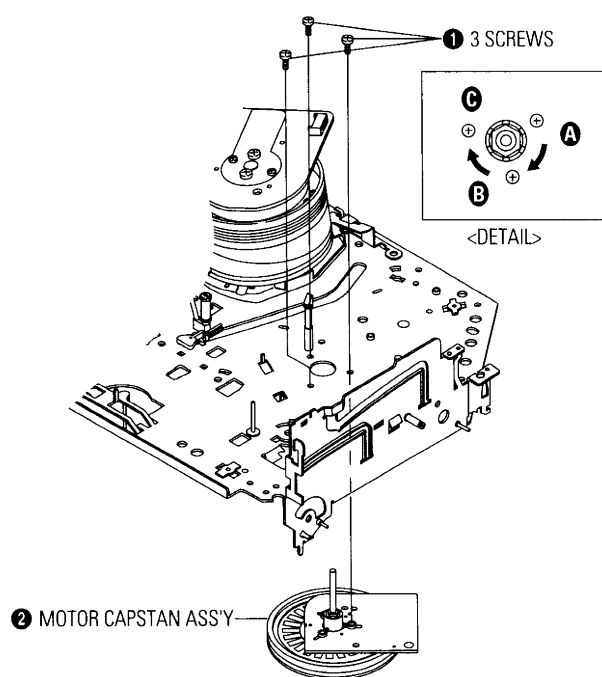


Fig. 4-36 Motor Capstan Ass'y Removal

### 4-3-29 How to Eject the Cassette Tape (If the unit does not operate on condition that is inserted into housing ass'y)

- 1) Remove the Holder worm ❶ and the Gear Worm ❷.
- 2) Turn the Gear Worm Wheel ❸ counterclockwise with screw driver. (Refer to arrow)

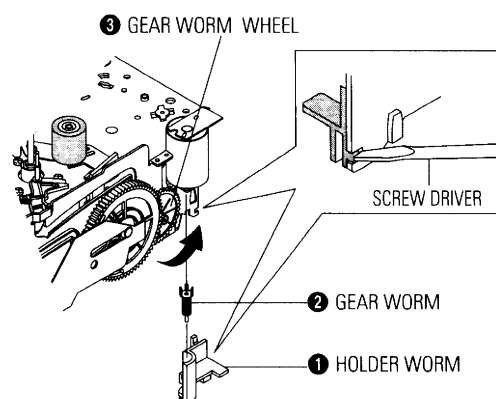


Fig. 4-37

- 3) When Slider S, T are approached in the position of unloading, rotate holder Clutch counterclockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwound tape. (Refer to Fig. 4-38)
- (If you rotate Gear Worm Wheel continuously when tape is in state of unwinding, you may cause a tape contamination by grease and tape damage. Be sure to wind the unwound tape in the state of set horizontally.)
- 4) Rotate Gear Worm Wheel ❸ counterclockwise using screw driver again up to the state of eject mode and then pick out the tape. (Refer to Fig. 4-36)

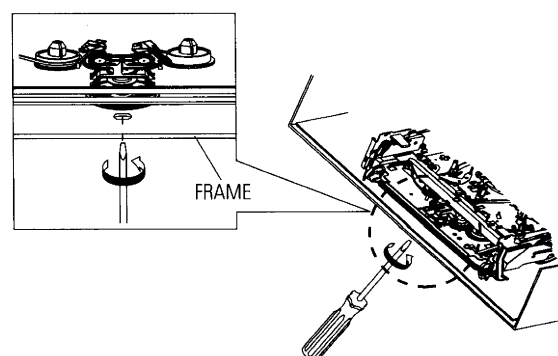


Fig. 4-38



#### 4-4 The table of clearing, Lubrication and replacement time about principal parts

1) The replacement time of parts is not life of parts.

2) The table 4-1 is that the VCR Set is in normal condition (normal temperature, normal humidity).

The checking period may be changed owing to the condition of use, runtime and environmental conditions.

3) Life of the Cylinder Ass'y is depend on the condition of use.

4) See exploded view for location of each parts.

<Table 4-1>

*	Parts Name	Checking Period										Remark
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
T A P E  P A T H  S Y S T E M	POST TENSION	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	- To clean the parts, use patch and alcohol (solvent).
	SLANT POST S, T	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#8 GUIDE SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	CAPSTAN SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	- After cleaning, use the video tape after alcohol is gone away completely.
	#9 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#3 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	GUIDE ROLLER S, T	Δ	Δ	Δ	0	0	0	0	0	0	0	- We recommend to use oil (EP-56) or solvent.
	CYLINDER ASS'Y	Δ	0	0	0	0	0	0	0	0	0	
	FE HEAD	Δ	Δ	Δ	0	0	0	0	0	0	0	
	ACE HEAD	Δ	0	0	0	0	0	0	0	0	0	- One or two drops of oil should be applied after cleaning with alcohol.
	PINCH ROLLER	Δ	0	0	0	0	0	0	0	0	0	
	POST REEL S, T		◆		◆		◆		◆		◆	
	SLEEVE TENSION		◆		◆		◆		◆		◆	- Periodic time of applying oil (Apply oil after cleaning) - The excessive applying oil may be the cause of malfunction.
	POST CENTER		◆		◆		◆		◆		◆	
	LEVER IDLE BOSS (2Point)		◆		◆		◆		◆		◆	
D R I V I N G  S Y S T E M	CAPSTAN MOTOR PULLEY	Δ	Δ	Δ	Δ	Δ	0	0	0	0	0	
	BELT PULLEY				0	0	0	0	0	0	0	
	HOLDER CLUTCH ASS'Y	Δ	0	0	0	0	0	0	0	0	0	
	GEAR CENTER ASS'Y		0	0	0	0	0	0	0	0	0	
	GEAR IDLE (2Point)		0	0	0	0	0	0	0	0	0	
	LOADING MOTOR		0	0	0	0	0	0	0	0	0	
B R A K E  S Y S T E M	BAND BRAKE ASS'Y		0	0	0	0	0	0	0	0	0	
	BRAKE T ASS'Y		0	0	0	0	0	0	0	0	0	

Δ : Cleaning

0 : Check and replacement in necessary

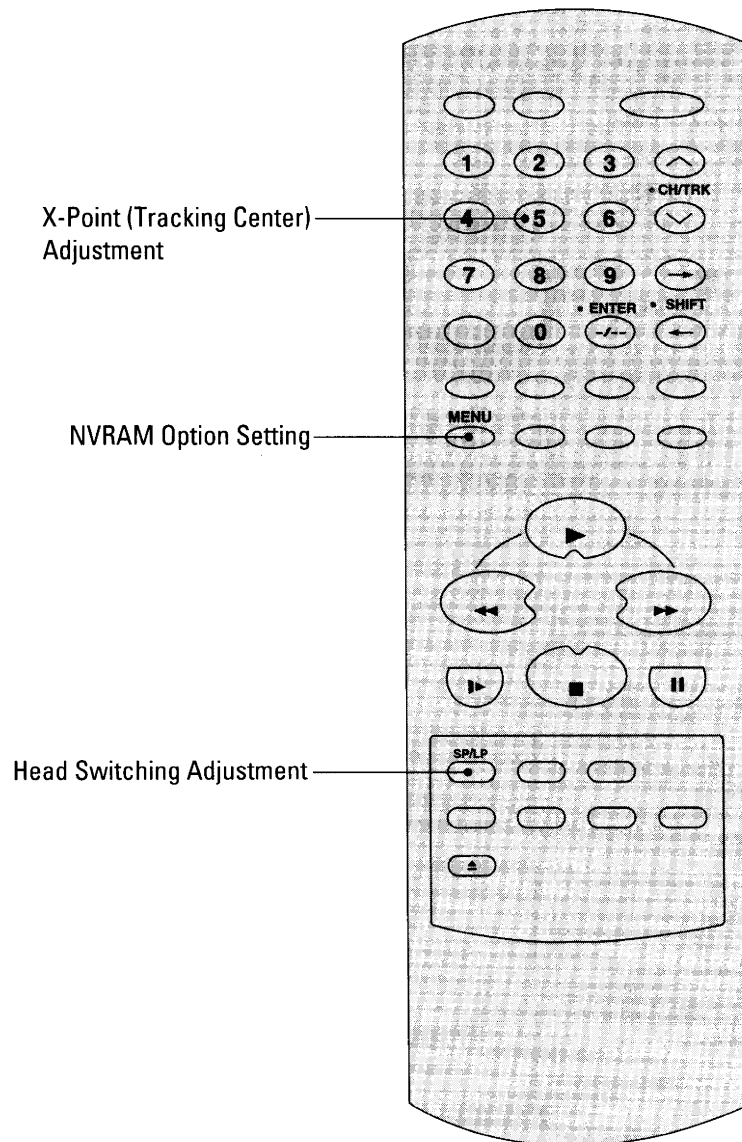
◆ : Add Oil

## 5. Alignment and Adjustment

### 5-1 Reference

- 1) X-Point (Tracking center) adjustment, "Head switching adjustment" and "NVRAM option setting" can be adjusted with remote control.
- 2) When replacing the Micom (IC601) and NVRAM (IC605 ; EEPROM) be sure to adjust the "Head switching adjustment" and "NVRAM option setting".
- 3) When replacing the cylinder ass'y, be sure to adjust the "X-Point" and "Head switching adjustment".
- 4) Remote control used for same chassis as a accessory is available for all adjustments.
- 5) How to adjustment.
  - Press the "SW701 (TEST)" button on Main PCB to set the adjustment mode.
  - If the corresponding adjustment button is pressed, the adjustment is performed automatically.
  - If the adjustment is completed, be sure to turn the power off.

#### 5-1-1 Location of adjustment button of remote control



<This remote control is using the for V-729B.>

Fig. 5-1

5-1-2 SW701 (TEST) location for adjustment mode setting

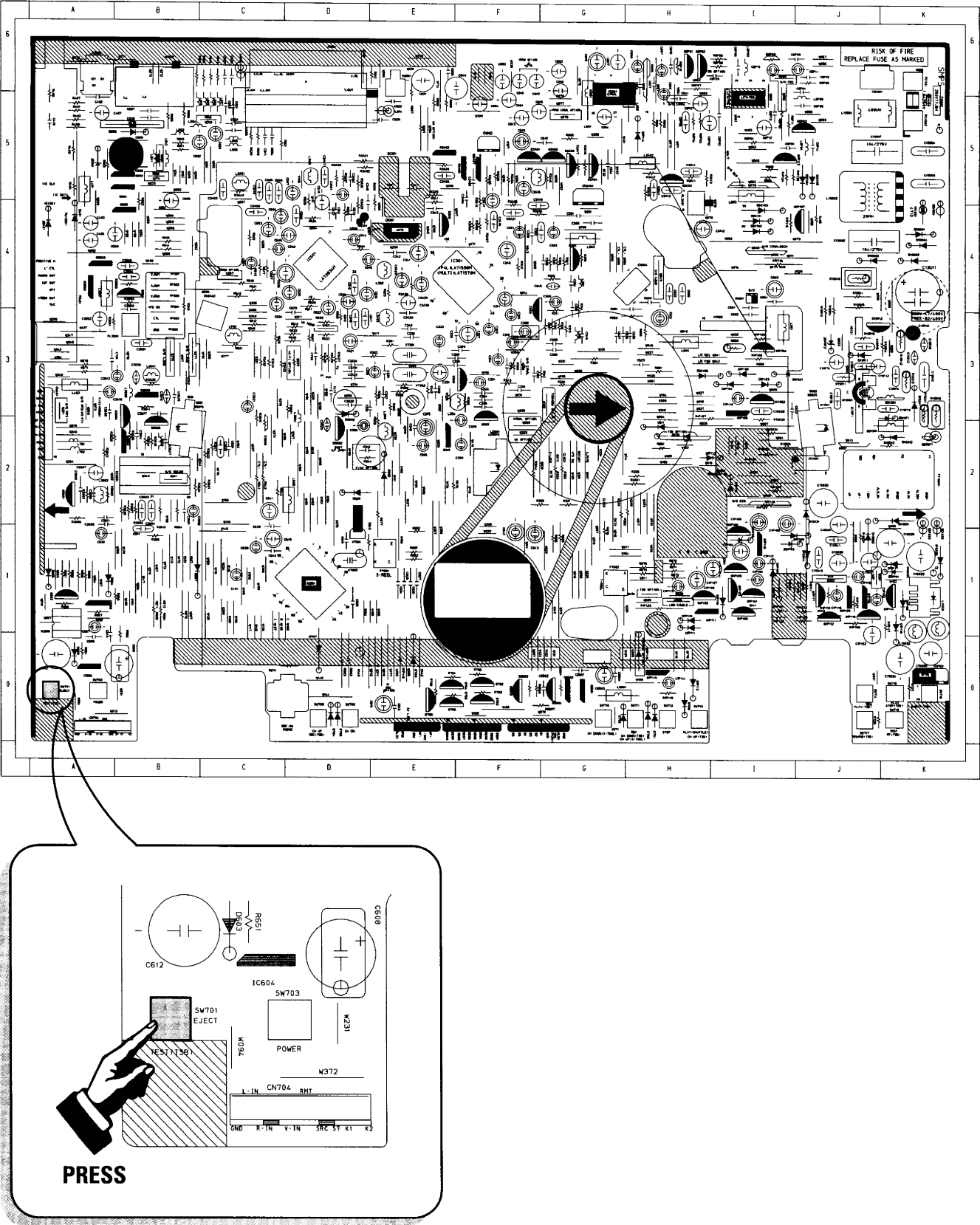


Fig. 5-2 Main PCB (Top View)

## 5-2 Mechanical Adjustment

### 5-2-1 Tape Transport System and Adjustment Locations

The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :

- 1) Noise observed on the screen.
- 2) Tape damage.
- 3) Parts replacement in the tape transport system.

Lower flange height of tape guide is used as the reference for the transport adjustment.

To maintain the height of the tape guide and prevent damage, do not apply excessive force onto the main base.

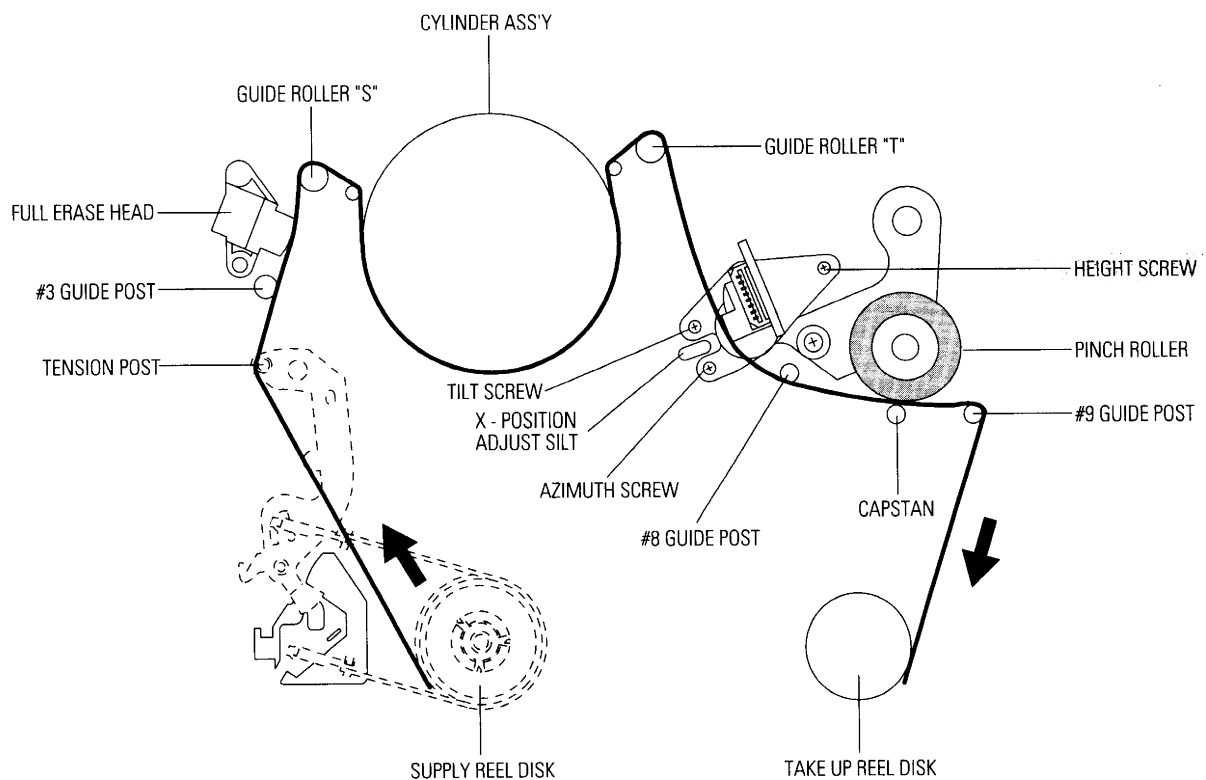


Fig. 5-3 Location of Tape Transport Adjustment

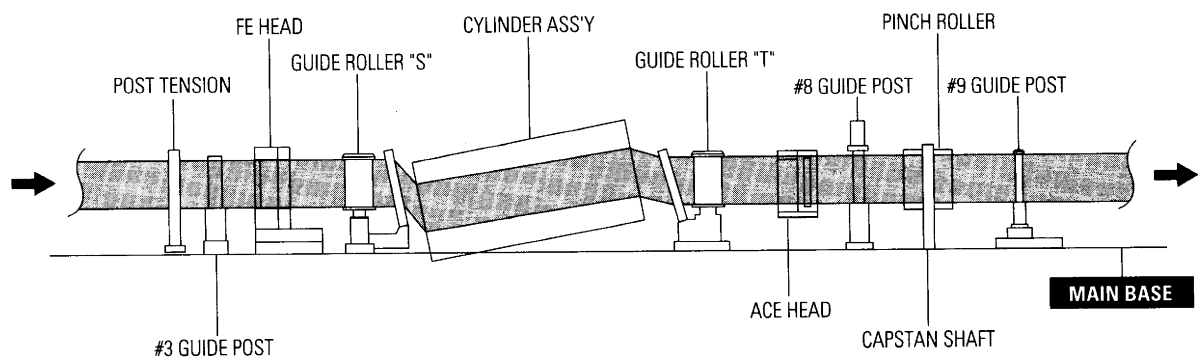


Fig. 5-4 Tape Travel Diagram

## 5-2-2 Tape Transport System Adjustment

When parts are replaced, perform the required adjustments by referring to procedures for the tape transport system. If there are any changes to the tape path, first run a E-120 tape and make sure excessive tape wrinkle does not occur at the tape guides.

- 1) If tape wrinkle is observed at the guide roller S, T, turn the guide roller S, T until wrinkle disappears.
- 2) If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the ACE head.

### (1) ACE Head Assembly Adjustment

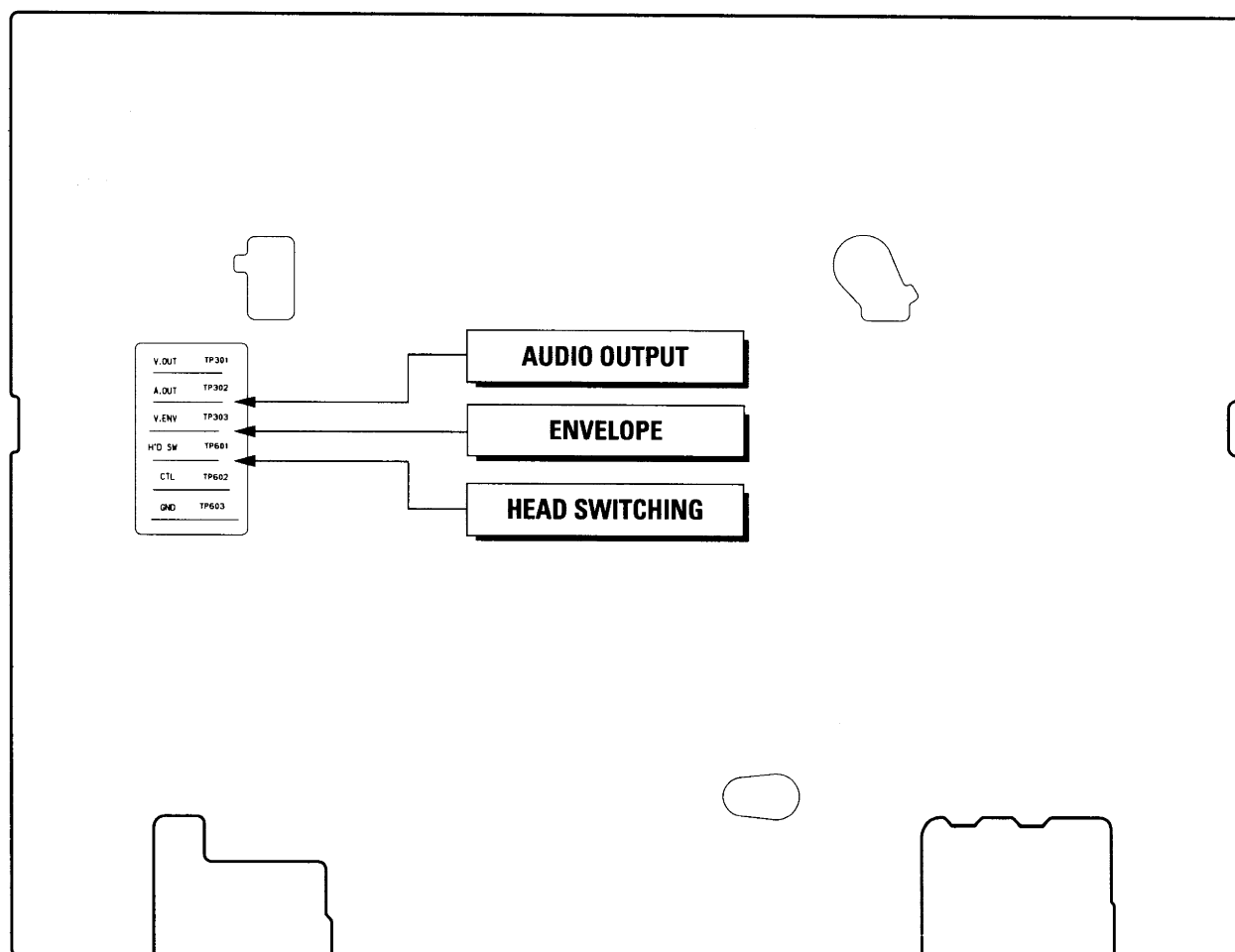
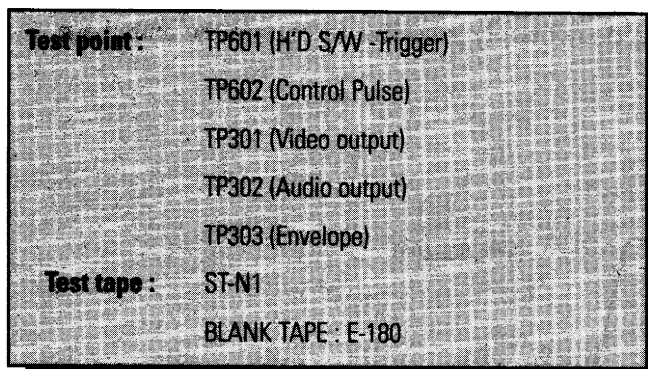


Fig. 5-5 Location of Test point (Main PCB-Top View)

## a. ACE HEAD HEIGHT ADJUSTMENT

- 1) Run the alignment tape (Color bar) in the playback mode.
- 2) Observe surface of the audio head using a dental mirror.
- 3) Turn screw (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25mm.  
(Refer to Fig. 5-6 and 5-7)

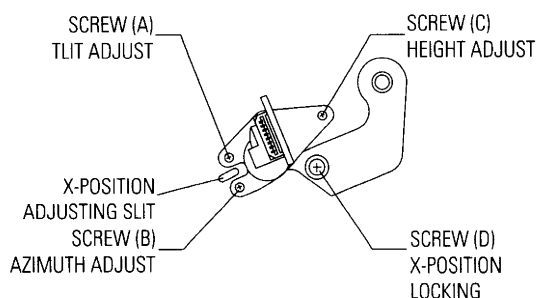


Fig. 5-6 Location of ACE Head Adjustment Screw

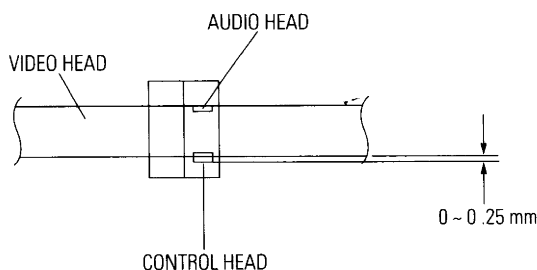


Fig. 5-7 ACE Head Height Adjustment

## b. ACE HEAD TILT ADJUSTMENT

- 1) Playback a blank tape and observe the position of the tape at the lower flange of tape guide.
- 2) Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig. 5-8 (B).
- 3) If a curl or wrinkle of the tape occurs, slightly turn the screw (A) tilt adjust on the ACE head ass'y.
- 4) Reconfirm the ACE head height.

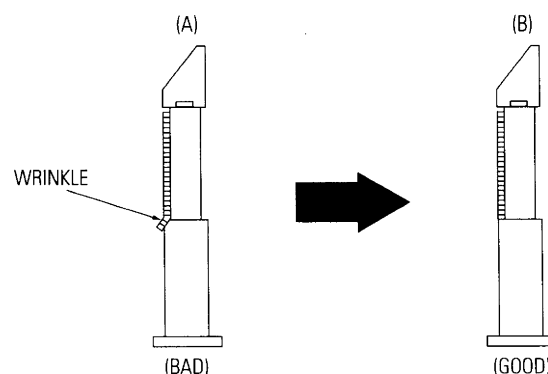


Fig. 5-8 Tape Guide Check

## c. AUDIO AZIMUTH ADJUSTMENT

- 1) Load alignment tape (Mono scope) and playback the NTSC : 7KHz (PAL : 6KHz) signal.
- 2) Connect channel-1 scope probe to audio output test point (TP302).
- 3) Adjust screw (B) to achieve maximum audio level.  
(See Fig. 5-6)

## d. ACE HEAD POSITION (X-POINT) ADJUSTMENT

- 1) Playback the alignment tape (Color bar).
- 2) Press the "SW701 (TEST)" button on Main PCB to set the adjustment mode. (See Fig. 5-2)
- 3) Press the "5" button of remote control then adjustment is operated automatically. (See Fig. 5-1)
- 4) Connect the CH-1 probe to TP303 (Envelope) the CH-2 probe to TP601 (H'D switching pulse) and then trigger to CH-1.
- 5) Insert the (-) driver into the X-Point adjustment hole and adjust it so that envelope waveform is maximum.
- 6) Turn the Power off.

## (2) Linearity adjustment (Guide roller S, T adjustment)

- 1) Playback the Mono Scope alignment tape (SP mode).
- 2) Observe the video envelope signal on an oscilloscope (triggered by the video switching pulse).
- 3) Make sure the video envelope waveform (at its minimum) meets the specification shown in Fig. 5-9.

If it does not, adjust as follows :

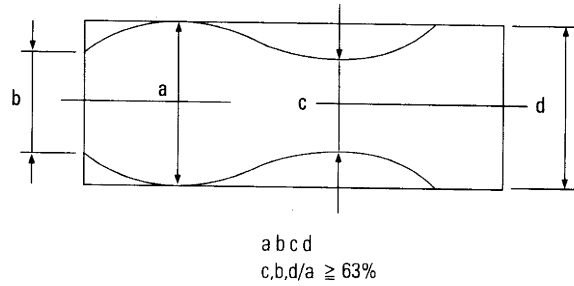


Fig. 5-9 Envelope Waveform Adjustment

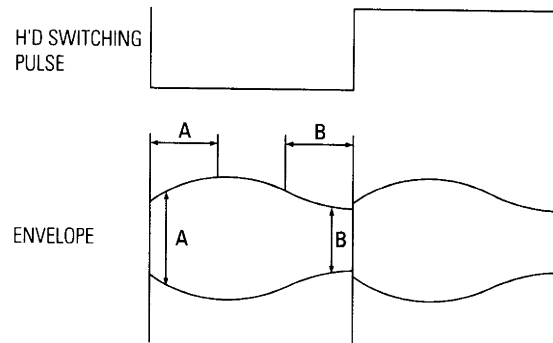


Fig. 5-10 Adjustment Points

- 4) If the section A in Fig. 5-10 does not meet the specification, adjust the guide roller S up or down.
- 5) If the section B in Fig. 5-10 does not meet the specification, adjust the guide roller T up or down.
- 6) Playback the Mono Scope alignment tape (SP mode).
- 7) Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW Pulse for triggering.
- 8) Turn the guide roller heads with a flat head (■) driver to obtain a flat video RF envelope as shown in Fig. 5-11.

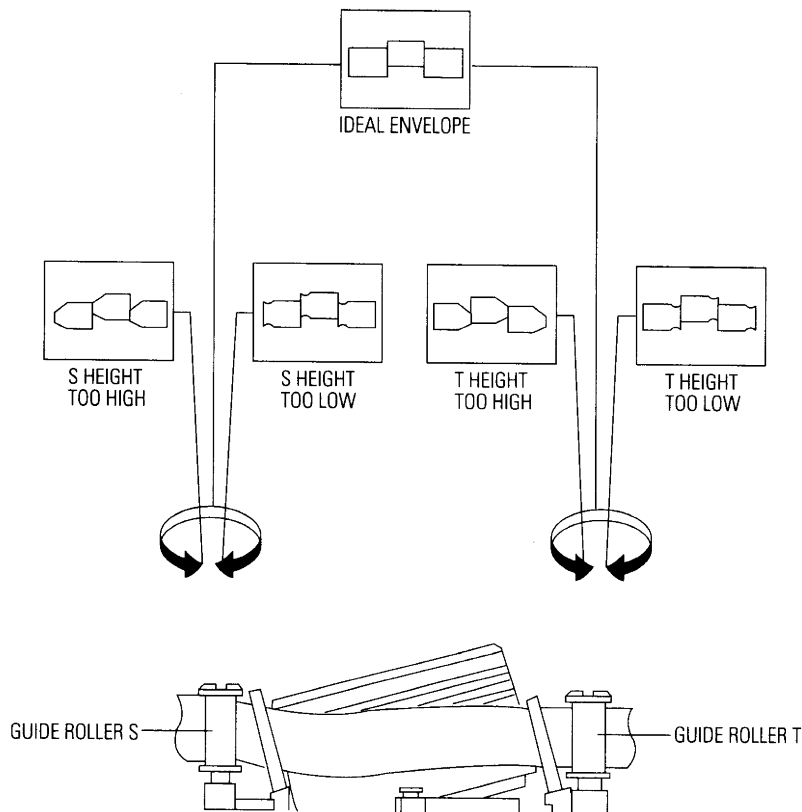


Fig. 5-11 Guide Roller S, T Height Adjustment

### (3) Check Transitional Operation from RPS to Play

Check transition from RPS mode to play mode :  
Using a pre-recorded SP tape, make sure the entry side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 5-12).  
If the envelope waveform does not reach specified peak-to-peak amplitude within 3 seconds, adjust as follows :

- 1) Make sure there is no gap between the supply roller lower flange and the tape.  
If there is a gap, adjust the supply guide roller again.
- 2) Change operation mode from the RPS to the play mode (again) and make sure the entry side of envelope rises within 3 second.

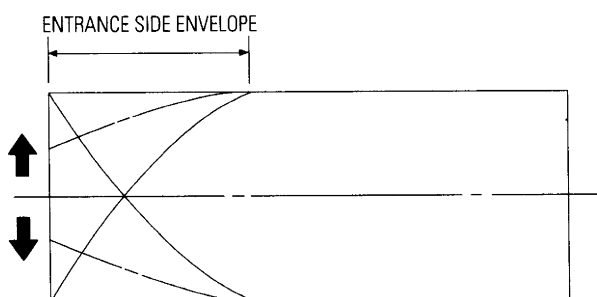


Fig. 5-12 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

### (4) Envelope Check

- 1) Make recordings on T-120 (E-120) and T-160 (E-180) tape.  
Make sure the playback output envelope meets the specification as shown in Fig. 5-13.
- 2) Play back a self recorded tape (recording made on the unit using with T-120 (E-120)).  
The video envelope should meet the specification as shown in Fig. 5-13.  
In SP mode, (A) should equal (B).  
If the head gap is wide, upper cylinder should be checked.

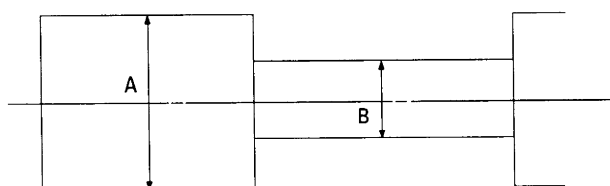


Fig. 5-13 Envelope Output and Output Level

### (5) Tape Wrinkle Check

- 1) Run the T-160 (E-180) tape in the playback, FPS, RPS and Pause modes and observe tape wrinkle at each guide.
- 2) If excessive tape wrinkle is observed, perform the following adjustments in Playback mode :
  - ◆ Tape wrinkle at the guide roller S, T section :  
Linearity adjustment.
  - ◆ Tape wrinkle at tape guide flange :  
ACE head assembly coarse adjustment.



### 5-2-3 Reel Torque

- 1) The rotation of the capstan motor causes the holder clutch ass'y to rotate through the belt pulley.
- 2) The spring wrap PLAY/REV of holder clutch ass'y drives the disk reel S, T through gear idle by rotation of gear center ass'y.
- 3) Brake is operated by slider cam at FF/REW mode.
- 4) Transportation of accurate driving force is done by gears. (Gear Center Ass'y)

**Note :** If the spec. does not meet the followings specifications, replace the holder clutch ass'y and then recheck.

<Table 5-1>

MODE	TORQUE g/cm		GAUGE
PB	NTSC	$82.5 \pm 27.5$	Cassette Torquemeter
	PAL	$79 \pm 27$	
RPS	$145 \pm 30$		Cassette Torquemeter

### 5-2-4 Location adjustment and Confirmation of Tension Post

- 1) Remove the holder cassette ass'y and then push the lever FL Arm-R to the direction of loading.
- 2) Push the lever tension drive ① in the direction of arrow. (See Fig. 5-14)
- 3) Turn the gear worm wheel ② clockwise so that "Timing Point" of the slider FL drive ③ and gear FL cam ④ can be aligned (See Fig. 5-15)

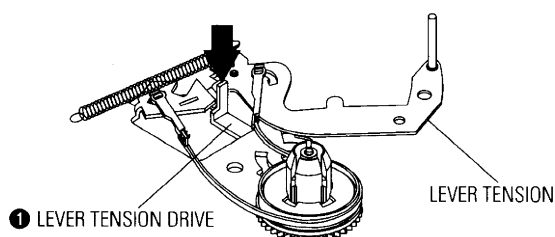


Fig. 5-14

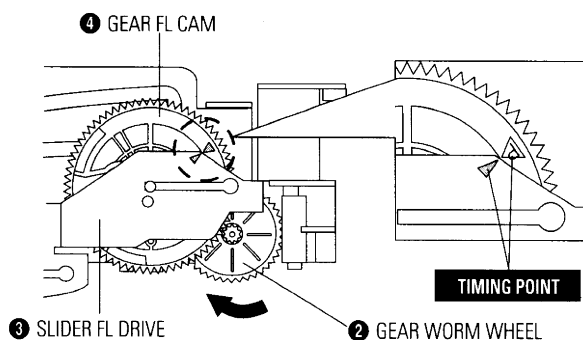


Fig. 5-15

- 4) As rotating Disk S Reel ① clockwise and the region of adjusting in the Main Base (in shape of slit) clockwise or counterclockwise after inserting screw driver in the slit on Main Base. Adjust the left end edge of Lever Tension Ass'y ③ to  $1.3 +1.5/-0.5\text{mm}$  from the location of mark in the Main Base.
- 5) As rotating Disk S Reel ①, double-check the location of the left end edge of Lever Tension Ass'y and the quantity of crossing from mark on Main Base. ( $+1.0/-0.5\text{mm}$ )

**Counterclockwise :** Torque UP

**Clockwise :** Torque DOWN

Back Tension should be  $56 \pm 15\text{g.cm}$  at inspecting it with Back Tension Meter.

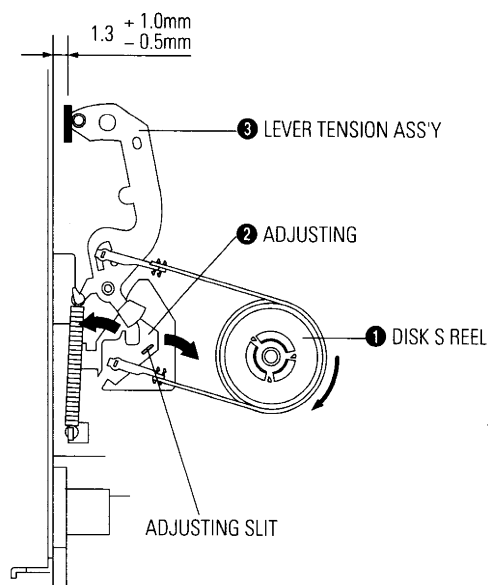


Fig. 5-16 Tension Pole and Back Tension Adjustment

**Note :**

- 1) Mark on Main Base is located in about 1.3mm from inside of bending line.
- 2) Be careful not to deform the region of adjusting on Main Base up and down at adjusting.

### 5-3 Head Switching Point Adjustment

- 1) Playback the alignment tape.
- 2) Press the "SW701 (TEST)" button on Main PCB to set the adjustment mode. (See Fig. 5-2)
- 3) Press the "SP/SLP" button of remote control then adjustment is operated automatically. (See Fig. 5-1)
- 4) Turn the Power off.

### 5-4 NVRAM Option Setting

- 1) NVRAM Option is adjusted at production line basically.
- 2) In case Micom (IC601) and NVRAM (IC605 ; EEPROM) is replaced, be sure to set the corresponding option number of the repaired model. (If the option is not set, the unit is not operated.)

- 1) Press the "SW701 (TEST)" button on Main PCB to set the adjustment mode. (See Fig. 5-2)
- 2) Press the "MENU (OSP)" button on the remote control about 5 seconds then option setting display is appeared. (See Fig. 5-17)
- 3) Select the option number (See Table 5-2) of corresponding model with "SHIFT  $\odot \odot$ " button on the remote control.
- 4) If selecting the option number is completed, press the "CH/TRK (PROG.TV)  $\odot$ " button of remote control. (If "CH/TRK (PROG.TV)  $\odot$ " button is pressed, the selected number is changes reversed color. ; See Fig. 5-17)
- 5) Press the "ENTER (ENTRER)" button of remote control again to store the option number. ("SAVE" is displayed for a second as shown Fig. 5-18 and this setting is completed.)
- 6) Turn the Power off.

<Table 5-2>

MODELS	OPTION NUMBER
V-729B	3, 4, 6, 7, 8, 12, 13, 15, 21, 22, 23, 24, 33, 36, 37, 44, 48
V-709B	3, 6, 7, 8, 12, 13, 15, 21, 22, 23, 24, 34, 36, 44, 48
V-429B	3, 4, 6, 7, 8, 12, 22, 24, 33, 37, 48
V-229B	3, 4, 6, 7, 8, 22, 24, 33, 37, 48
V-219B	3, 4, 6, 7, 8, 22, 24, 33, 37, 48
V-209UK	3, 8, 22, 23, 24, 34, 48
V-729EG	2, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 18, 21, 22, 23, 24, 26, 30, 33, 36, 37, 44, 48
V-719EG	2, 5, 7, 8, 10, 12, 13, 14, 15, 16, 18, 21, 22, 23, 24, 26, 30, 34, 36, 44, 48
V-429EG	2, 4, 5, 7, 8, 10, 12, 13, 16, 18, 22, 24, 26, 30, 33, 37, 48
V-229EG	2, 5, 7, 8, 10, 16, 18, 21, 22, 24, 26, 30, 34, 48
V-219EG	2, 5, 7, 8, 10, 16, 18, 22, 24, 26, 30, 34, 48
V-209EG	5, 7, 8, 10, 16, 18, 22, 23, 24, 26, 30, 34, 48
V-729F	2, 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 18, 19, 21, 22, 23, 24, 25, 29, 33, 36, 37, 44, 48
V-609F	2, 5, 8, 9, 12, 13, 14, 15, 18, 19, 21, 22, 23, 25, 29, 34, 36, 44, 48
V-429F	2, 5, 6, 7, 8, 9, 12, 16, 18, 19, 22, 24, 25, 29, 33, 37, 48
V-419F	2, 5, 8, 9, 12, 18, 19, 22, 25, 29, 34, 48
V-229F	2, 5, 6, 7, 9, 16, 18, 19, 22, 24, 25, 29, 33, 37, 48
V-219F	2, 5, 9, 18, 19, 22, 25, 29, 34, 48
V-729W	5, 8, 10, 12, 13, 14, 15, 18, 21, 22, 23, 26, 29, 30, 34, 36, 44, 48
V-429W	5, 8, 10, 12, 18, 22, 26, 29, 30, 34, 48
V-209W	8, 10, 18, 22, 26, 29, 30, 34, 48

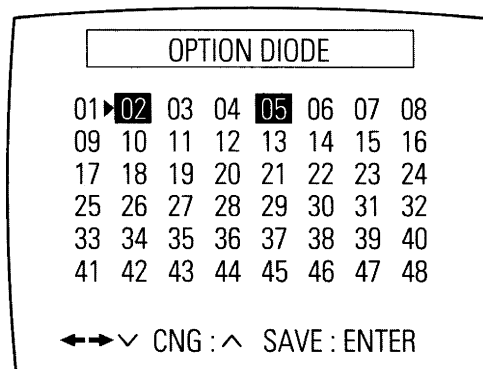


Fig. 5-17

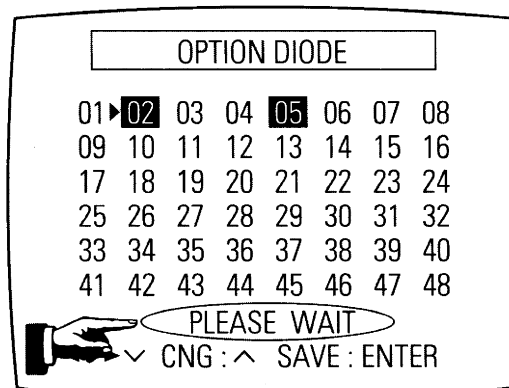


Fig. 5-18

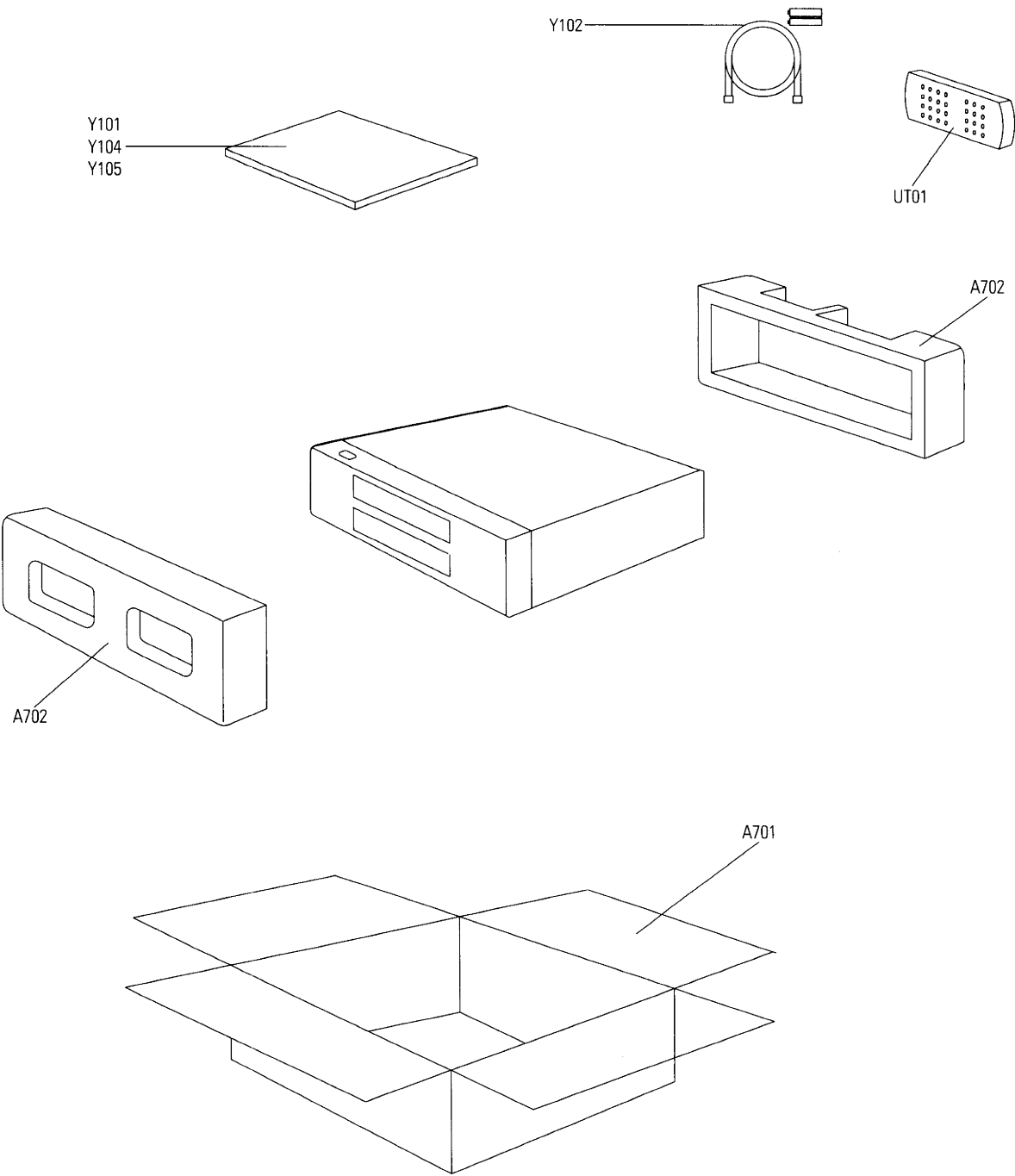
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## 6. Exploded View

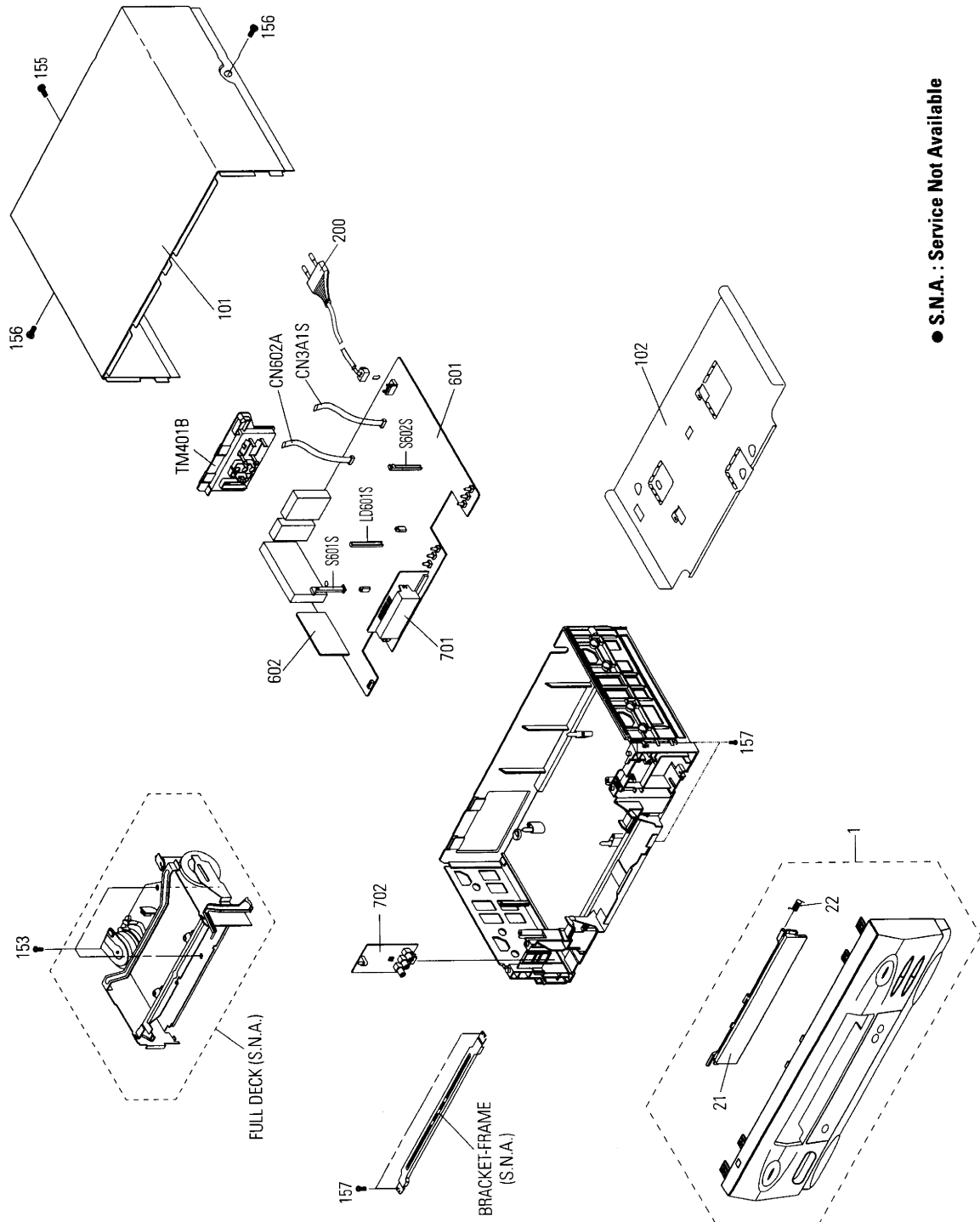
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<b>6-1 Packing Assembly</b>	<b>6-2</b>
<b>6-2 Instrument Assembly</b>	<b>6-3</b>
<b>6-3 Mechanical Parts (Top Side)</b>	<b>6-4</b>
<b>6-4 Mechanical Parts (Bottom Side)</b>	<b>6-5</b>

6-1 Packing Assembly

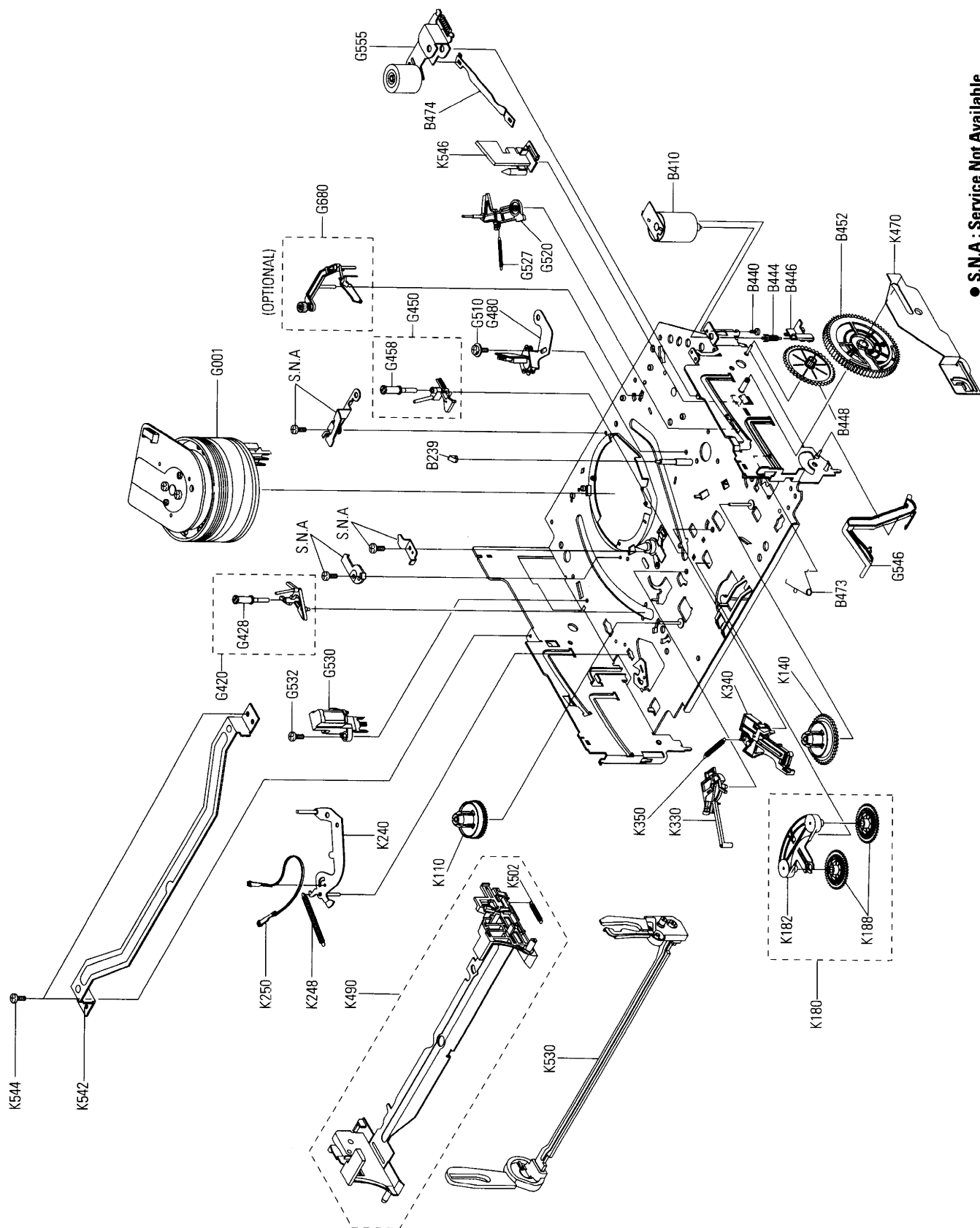


## 6-2 Instrument Assembly



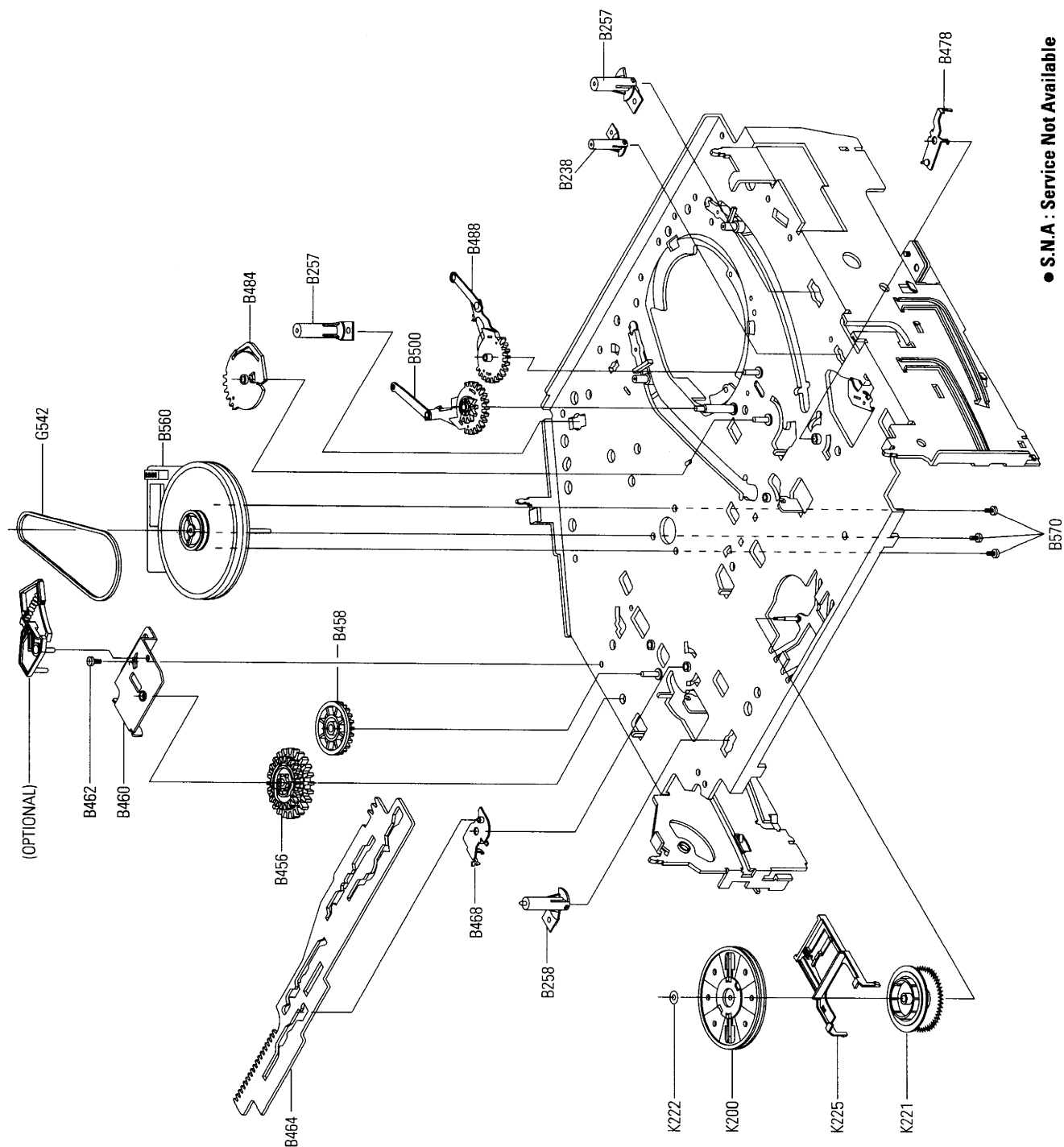
● S.N.A. : Service Not Available

## 6-3 Mechanical Parts (Top Side)



● S.N.A : Service Not Available

## 6-4 Mechanical Parts (Bottom Side)



● S.N.A : Service Not Available

## 7. Replacement Parts List

**NOTE:** This parts listed on the basic model V-729B, V-709B.  
The different parts for other models are listed on the differential list.

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
<b>V-729B</b>					
<b>-PACKING PARTS-</b>					
A701	BY634209	AC69-50913W	AC69-50913W	PACKING CASE;V-729B,-,-,428,-	
A702	BY730125	AC69-00030A	AC69-00030A	CUSHION-F/B;V-729B,EPS,-,-,-,-,-	
UT01	BY634128	AC59-00005A	AC59-00005A	REMOCON-ASSY;-TOSHIBA,-,45KEY,V-729B,-	
Y101	BY634152	AC68-00156A	AC68-00156A	MANUAL-USERS;V-729B,MOJO100,-,-,ENG,-	
Y102	BY634127	AC39-42001L	AC39-42001L	CABLE-RF ASSY;PAL,-,1.2M,-,-,-,-	
<b>-INSTRUMENT PARTS-</b>					
1	BY730403	AC97-00122A	AC97-00122A	ASSY-PANEL FRONT;V-729B/TSB,HIPS94HB,SIL	
21	BY730330	AC64-52175C	AC64-52175C	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
22	BY730093	AC61-62032A	AC61-62032A	SPRING-MASK;X-9,-,SUS,-,4.4,-,SV-C130	
101	BY730313	AC64-30899C	AC64-30899C	CABINET-TOP-ASSY;-PCM(SECC)-,0.525,380	
102	BY730280	AC63-32128A	AC63-32128A	COVER-BOTTOM;SV-C140F,SECC,387.7X197.6,T	
153	70790218	AC60-12126A	67158-240-121	SCREW-BH;-BH,-,4*12,FE,FZY,-,-,-	
155	70790082	AC60-12134A	67158-240-163	SCREW-TAP BH;-BH,-,2-4X16,-,FE	
156	BY730204	AC60-00001A	AC60-00001A	SCREW-MACHINE;-BH,*4X12,M4,L12,BLK,SMC	
157	70790002	AC60-10063A	60504-0040-00	SCREW-TAPTITE;BH,+,-,M3,L12,ZPC3,SWRCH18	
200	BY634126	AC39-12022K	AC39-12022K	POWER-CORD;Y352160,H03VVH2-F,-,BS6500,1.	
CN3A1S	BY634118	3809-001111	3809-001111	CABLE-FLAT;30V,80C,130mm,7P,1.25mm,UL289	
CN602A	BY634007	3809-001049	3809-001049	CABLE-FLAT;30V,80C,100MM,5P,1.25MM,UL289	
LD601S	BY730082	AC61-21009A	AC61-21009A	HOLDER-LED;-POM(M90-44)-,BLK,-,X-9	
S601S	BY730080	AC61-21008A	AC61-21008A	HOLDER-SENSOR;-POM(M90-44)-,BLK,-,X-9	
S602S	BY730080	AC61-21008A	AC61-21008A	HOLDER-SENSOR;-POM(M90-44)-,BLK,-,X-9	
TM401B	BY730221	AC61-11061C	AC61-11061C	CONNECTOR BOARD-ASSY;V-629F/TSB,HIPS94,H	
<b>-MECHANICAL PARTS-</b>					
B238	BY730087	AC61-50660A	AC61-50660A	SLEEVE-TENSION;-POM M90-44,-,-,ID3,-,-,	
B239	BY730234	AC61-21004A	AC61-21004A	CAP-#8 GUIDE;-POM M90-44,-,NTR,-,X-9	
B257	BY730247	AC61-50661A	AC61-50661A	POST-MAIN PCB;-POM M90-44,-,-,NTR,-,X-9	
B258	BY730266	AC61-50684A	AC61-50684A	GUIDE-MAIN PCB;-POM,OD7,120,-,BLACK,X-9	
B410	BY730066	AC31-12016A	AC31-12016A	MOTOR-LOADING ASSY;-,-,X-9	
B440	BY730072	AC60-10515A	AC60-10515A	SCREW-MACHINE;-PH,+,-,M3,L3,ZPC,-,YEL	
B444	BY730104	AC66-20571A	AC66-20571A	GEAR-WORM;-POM SW-01,0.5,2,-,4.5,X-9	
B446	BY730079	AC61-21005A	AC61-21005A	HOLDER-WORM;-POM M90-44,-,-,-,X-9	
B448	BY730105	AC66-20573A	AC66-20573A	GEAR-WORM WHEEL;-POM SW-01,0.6,11,-,6.6	
B452	BY730107	AC66-20575A	AC66-20575A	GEAR-FL CAM;-POM SW-01,M0.6,Z88,-,PCD58	
B456	BY730108	AC66-20576A	AC66-20576A	GEAR-JOINT 1;-POM SW-01,M1.0,Z22,-,PCD2	
B458	BY730106	AC66-20574A	AC66-20574A	GEAR-JOINT 2;-POM SW-01,M1.0,Z14,-,PCD1	
B460	BY730215	AC61-11045A	AC61-11045A	BRACKET-GEAR;-SECC20/20,-,T1.2,-,-,X-9	
B462	BY730073	AC60-10517A	AC60-10517A	SCREW-TAP TITE;-PH,+,-,M2.6,L5,ZPC,-,YE	
B464	BY730381	AC66-80140A	AC66-80140A	SLIDER-CAM;-SECC20/20,T1.2,-,-,X-9	
B468	BY730366	AC66-30541A	AC66-30541A	LEVER-PINCH DR ASSY;-,-,-,-,-,X-9	
B473	BY730090	AC61-60559A	AC61-60559A	SPRING-PINCH DRIVE;-TS,SUS304,PI0.5,OD4	
B474	BY730244	AC61-30180A	AC61-30180A	PLATE-JOINT;-SECC20/20,T0.8,-,X-9	
B478	BY730365	AC66-30540A	AC66-30540A	LEVER-TENS DR ASSY;-,-,-,-,-,X-9	
B484	BY730110	AC66-20580A	AC66-20580A	GEAR-LOADING DRIVE;-POM SW-01,M1.0,Z32,	
B488	BY730117	AC66-30543A	AC66-30543A	LEVER-S LOAD ASSY;-,-,-,-,-,X-9	
B500	BY730116	AC66-30542A	AC66-30542A	LEVER-T LOAD ASSY;-,-,-,-,-,X-9	
B560	BY730201	AC31-00001A	AC31-00001A	MOTOR-CAPSTAN;-F2QSB,-,-	
B570	BY730071	AC60-10514A	AC60-10514A	SCREW-CAPSTAN;-PH,+,-,M2.6,L6,-	
G001	BY730386	AC96-10481L	AC96-10481L	ASSY-CYLINDER;CX-9,PAL 6HD	
G420	BY730124	AC66-80142A	AC66-80142A	SLIDER-SUPPLY ASSY;-X-9(TS)-,-,-,-,X-9	
G428	BY730374	AC66-40153A	AC66-40153A	ROLLER-SUPPLY ASSY;-VW-32,OD7,-,X-9	
G450	BY730123	AC66-80141A	AC66-80141A	SLIDER-TAKE UP ASSY;-X-9(TS)-,-,-,-,X-9	
G458	BY730375	AC66-40154A	AC66-40154A	ROLLER-TAKE UP ASSY;-VW-32,OD7,-,X-9	
G480	BY730069	AC33-10217H	AC33-10217H	HEAD-ACE ASSY;-,-,-,-,-,X-9	
G510	BY730074	AC60-10518A	AC60-10518A	SCREW-TAP TITE;-PH,+,-,SW+ZW,M2.6,L5.6,ZP	
G520	BY730115	AC66-30539A	AC66-30539A	LEVER-#9 GUIDE ASSY;-X-9(TS)-,-,-,-,X-9	
G527	BY730088	AC61-60553A	AC61-60553A	SPRING-#9 GUIDE;-ES,SUS304-WPB,OD3.1,0.	
G530	BY730068	AC33-10217G	AC33-10217G	HEAD-FE;VAA00000275,-,-,-,-,X-9	
G532	BY730075	AC60-10519A	AC60-10519A	SCREW-TAP TITE;-PH,+,-,M2.6,L8,ZPC	
G542	BY730122	AC66-60051A	AC66-60051A	BELT-PULLEY;-5CM-70,2 * 2,-,71.3,-,X-9	
G546	BY730113	AC66-30535A	AC66-30535A	LEVER-FL DOOR;-POM M90-44,-,-,BLK,X-9	
G555	BY730070	AC59-90403A	AC59-90403A	UNIT-PINCH ASSY;X-9,-	
G680	BY730372	AC66-30557A	AC66-30557A	LEVER-H/CLEANER ASSY;-POM+URETHANE,-,-,	
K110	BY730102	AC66-10267A	AC66-10267A	REEL-DISK S;-POM M90-44,-,-,X-9	



Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
K140	BY730103	AC66-10268A	AC66-10268A	REEL-DISK T;-POM M90-44,-,-,X-9	
K180	BY730369	AC66-30548A	AC66-30548A	LEVER-IDLER ASSY;-POM+NYLON,-,-,X-9	
K182	BY730112	AC66-30524A	AC66-30524A	LEVER-IDLER;-POM9044,-,-,-	
K188	BY730109	AC66-20577A	AC66-20577A	GEAR-IDLER;-PEBAX 7033,-,-,-,X-9	
K200	BY730084	AC61-21012A	AC61-21012A	HOLDER-CLUTCH ASSY;-,-,-,-,X-9	
K221	BY730111	AC66-20581A	AC66-20581A	GEAR-CENTER ASSY;-POM,M=0.5,-,HIGHT T.,	
K222	BY730076	AC60-30306A	AC60-30306A	WASHER-SLIT;-ID2.1,OD5.0,TO.5,-,POLYS	
K225	BY730119	AC66-30547A	AC66-30547A	LEVER-UP DOWN ASSY;-POM+SUS,-,-,X-9	
K240	BY730114	AC66-30538A	AC66-30538A	LEVER-TENSION ASSY;-X-9(TS),-,-,X-9	
K248	BY730089	AC61-60554A	AC61-60554A	SPRING-TENSION LEVER;-ES,SUS304-WPB,OD3	
K250	BY730094	AC63-12029A	AC63-12029A	BAND-BRAKE ASSY;-X-9(TS),-,-,X-9	
K330	BY730121	AC66-30550A	AC66-30550A	LEVER-S.BRAKE ASSY;-POM+SUS,-,-,X-9	
K340	BY730120	AC66-30549A	AC66-30549A	LEVER-T.BRAKE ASSY;-POM+SUS,-,-,X-9	
K350	BY730092	AC61-60564A	AC61-60564A	SPRING-BRAKE;-TENSION,SWP-A.0.25,3,-,X-	
K470	BY730380	AC66-80139A	AC66-80139A	SLIDER-FL DRIVE;-SECC E20/20,T1.2,-,X	
K490	BY730236	AC61-21010B	AC61-21010B	HOLDER-CASS ASSY;-SECC+POM+SUS,-,-,SEIN	
K502	BY730091	AC61-60561A	AC61-60561A	SPRING-FL.LEVER-LR;-ES,SUS304 WPB,PI2.7	
K530	BY730118	AC66-30546A	AC66-30546A	LEVER-FL.ARM ASSY;-SECC+POM+SUS,-,-,-	
K542	BY730214	AC61-11044A	AC61-11044A	BRACKET-FL TOP;-SECC E20/20,-,T1.0,-,-	
K544	BY730073	AC60-10517A	AC60-10517A	SCREW-TAP TITE;-PH,+,-,M2.6,L5,ZPC,-,YE	
K546	BY730086	AC61-50658A	AC61-50658A	GUIDE-CASS. DOOR;-POM M90-44,-,-,NTR,-,	

**-ELECTRICAL PARTS-**

601	BY630063	AC92-00031A	AC92-00031A	ASSY-PCB-MAIN;V-729B/TSB,2S,VFD,PDC	
602	BY630080	AC93-10860V	AC93-10860V	ASSY-SUB(F-NICAM);SV-627F/XEF,PAL COBRA	
701	BY630030	AC93-10866W	AC93-10866W	ASSY-F/TIMER;SV-627F,VFD-AVLINK	
702	BY630065	AC92-00033A	AC92-00033A	ASSY-OPT PCB-MAIN;CBC FRONT,TSB PAL COBR	

**<INTEGRATED CIRCUITS>**

IC1SS1	BY530004	0604-001028	0604-001028	PHOTO-COUPLER;TR,50-600%,250mW,DIP-4,ST	△
IC1SS2	70795271	AC14-12006D	A4008-0757	IC;KA431Z,TO-92,TAPING	
IC301	BY631061	1204-001410	1204-001410	IC-VIDEO PROCESS;LA71590M,QFP,100P,-,PLA	
IC4N01	BY631063	1204-001516	1204-001516	IC-AUDIO PROCESSOR;MSP3417D,DIP,52P,551M	
IC501	BY631023	1204-001479	1204-001479	IC-AUDIO PROCESSOR;LA72634AM,QFP,64P,400	
IC601	BY631033	AC09-00024B	AC09-00024B	IC-MCU;UPD784927GF-119-3BA,100P,-,N90-11	
IC602	BY631022	1003-001162	1003-001162	IC-MOTOR DRIVER;KA3082,SIP,10PIN,25MIL,D	
IC604	70795269	AC14-12006C	AC14-12006C	IC;KA7533,DIP,-	
IC605	BY631058	1103-001101	1103-001101	IC-EEPROM;24C08,1028x8BIT,DIP,8P,300MIL,	
IC608	BY631059	1203-000515	1203-000515	IC-VOL. DETECTOR;7042,TO-92,3P,177MIL,PL	
IC6P01	BY631068	AC09-12014Z	AC09-12014Z	IC-MCU;LC74776M,30P,MFP,OSD/VPS/PDC I	
IC701	BY631031	AC09-00025A	AC09-00025A	IC-MCU;HD6473714H,64PINS,-,V-729B FLT MI	

**<TRANSISTORS>**

PT601	BY530005	0604-001122	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,	
PT602	BY530005	0604-001122	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,	
Q1P101	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P102	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P103	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P104	70693410	0501-000610	0501-000610	TR-SMALL SIGNAL;KSA928A-Y,PNP,1W,TO-92L,	
Q1P105	70795137	0504-000116	62137-701-010	TR-DIGITAL;KSR1001,NPN,300mW,4.7K-4.7K,T	
Q1P106	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q1P107	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92	
Q1P109	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q1P110	70693238	0504-000118	62137-701-012	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-	
Q1P111	70693084	0504-000142	A4050-0024	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q1P112	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92	
Q1P114	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P115	70693084	0504-000142	A4050-0024	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q1P116	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q1P117	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q1SR01	BY631060	1203-001049	1203-001049	IC-PWM CONTROLLER;1L0380,TO-220F,4P,10MI	
Q302	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q303	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q304	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q308	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q309	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q310	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q3A01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q3A03	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q3A04	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q3A05	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q3A06	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q3D01	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q3D02	70693084	0504-000142	A4050-0024	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3D03	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q602	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q6B01	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q6B02	70693084	0504-000142	A4050-0024	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q6B03	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
Q6B04	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q6P01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q6P02	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q6P03	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q701	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q802	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q803	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q804	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
S601	BY530003	0603-001011	0603-001011	PHOTO-TR;NPN,35V,6V,50mA,75mW,BK	
S602	BY530003	0603-001011	0603-001011	PHOTO-TR;NPN,35V,6V,50mA,75mW,BK	
<b>&lt;DIODES&gt;</b>					
D1P101	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P103	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P104	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P105	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P108	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P109	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P110	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P111	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P113	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P115	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P117	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P118	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P119	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1SD31	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SD32	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS01	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS02	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS03	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS04	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS11	BY430008	0402-000276	0402-000276	DIODE-RECTIFIER;UF4007,1KV,1A,DO-41,TP	
D1SS12	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS31	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS32	BY430010	0402-001194	0402-001194	DIODE-RECTIFIER;UG2D,200V,2A,DO-204AC,TP	
D1SS33	BY430065	0404-001069	0404-001069	DIODE-SCHOTTKY;B10A45VI,45V,10A,TO-220IS	
D1SS44	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D302	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D401	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D4N01	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D603	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D604	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D605	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D611	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D620	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D701	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D702	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D702	BY430014	0403-001141	0403-001141	DIODE-ZENER;MTZJ24D,24V,23.63-24.85V,500	
D703	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D704	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D705	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D706	BY430004	0403-000509	0403-000509	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
D707	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D708	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D709	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D805	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
LD601	BY430016	0601-000517	0601-000517	LED-IR;RECTANGULA,4x6.0mm,75mW,6V,950	
LD6B01	70796042	0601-000494	A4150-0089	LED-IR;ROUND,5mm,140mW,5V,940nm,-	
LD701	70796042	0601-000494	A4150-0089	LED-IR;ROUND,5mm,140mW,5V,940nm,-	
LD702	70796042	0601-000494	A4150-0089	LED-IR;ROUND,5mm,140mW,5V,940nm,-	
LD703	BY430066	0601-001201	0601-001201	LED;ROUND,RED,3mm,635nm	
ZD1P01	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD1P02	BY430005	0403-000717	0403-000717	DIODE-ZENER;MTZJ5.1B,5.1V,4.94-5.2V,500m	
ZD1P03	BY430013	0403-000720	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	
ZD1SF1	70796158	0403-000539	62169-423-030	DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500m	
ZD1SF2	70795591	0403-000294	A4106-0006	DIODE-ZENER;MTZ4.7B,4.7V,4.55-4.80V,500m	
ZD401	70795272	0403-000390	A4106-0062	DIODE-ZENER;UZP33B,33V,31.4-34.6V,1W,DO-	
ZD801	BY430064	0403-000595	0403-000595	DIODE-ZENER;MTZJ6.2,6.2V,5.78-6.44V,500m	
<b>&lt;INDUCTORS&gt;</b>					
BD1SD1	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-	
BD1SF1	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-	
BD1SS2	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-	
BD1SS3	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-	
FL3A01	BY330004	AC27-80100A	AC27-80100A	COIL-OSC;126QN-K5272YHC=K,-,AM	
FL3D01	BY330055	AC27-82001C	AC27-82001C	COIL-BIAS OSC;B02,W(TOKO)VX1850,-	
L1SS01	BY330056	AC29-30050B	AC29-30050B	FILTER-LINE NOISE,-,400uH,-,AC250V,TR12.	
L1SS02	BY330008	AC29-30050C	AC29-30050C	FILTER-LINE NOISE,-,25MH,0.35A,AC250V,BS	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description , Specification	Remark
L1SS31	70796213	AC27-12001N	A1130-0092	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L1SS32	70796213	AC27-12001N	A1130-0092	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L301	70795841	2701-000206	62427-010-294	INDUCTOR-AXIAL;56UH,5%,2.4X3.4MM	
L302	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L303	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L304	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L305	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L306	70796361	2701-000119	62427-020-121	INDUCTOR-AXIAL;120UH,5%,2.4X3.4MM	
L310	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3A01	70795171	2702-000120	62427-813-153	INDUCTOR-RADIAL;15mH,5%,6.2x7.4mm	
L3A02	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L3A03	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3D01	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L401	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L402	BY330003	3301-000297	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L4N01	70796075	2701-000188	62427-020-479	INDUCTOR-AXIAL;4.7UH,5%,2.4X3.4MM	
L4N02	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L4N03	70796075	2701-000188	62427-020-479	INDUCTOR-AXIAL;4.7UH,5%,2.4X3.4MM	
L4N04	BY330003	3301-000297	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L502	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L503	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L601	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L603	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L604	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L605	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L6B01	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L6B02	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L6P03	70795162	2701-000160	62427-020-220	INDUCTOR-AXIAL;22UH,5%,2.4X3.4MM	
L6P04	BY330054	2701-000201	2701-000201	INDUCTOR-AXIAL;5.6UH,5%,2.4X3.4MM	
L6P05	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L702	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L803	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L804	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L807	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L808	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L809	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L810	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L811	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L812	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L813	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
L814	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
<b>&lt;CAPACITORS&gt;</b>					
C1P101	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C1P102	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C1P103	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1P104	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C1P105	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm	
C1P106	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C1P107	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C1P108	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm	
C1P110	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1P113	70795114	2401-001915	A1104-0608	C-AL;1uF,20%,50V,GP,TP,3x5,5	
C1P114	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1P115	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1P116	70795114	2401-001915	A1104-0608	C-AL;1uF,20%,50V,GP,TP,3x5,5	
C1SD03	70795417	2201-000934	A1100-0580	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x	
C1SD04	70795417	2201-000934	A1100-0580	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x	
C1SD11	BY130283	2401-003302	2401-003302	C-AL;47uF,20%,400V,GP,TP,18X31.5,7.	
C1SD12	BY130268	2301-000140	2301-000140	C-FILM,PEF;10nF,10%,630V,BK,16.5X9.5X5.7	
C1SF12	BY130284	2401-000015	2401-000015	C-AL;33uF,20%,50V,WT,-,6.3x11mm,2.5	
C1SF13	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C1SF14	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1SF15	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C1SS01	BY130272	2305-001021	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.	
C1SS02	BY130272	2305-001021	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.	
C1SS12	BY130258	2201-000129	2201-000129	C-CERAMIC,DISC;100pF,10%,1KV,Y5P,TP,6x5,	
C1SS31	70795431	2401-000385	61637-511-100	C-AL;10uF,20%,100V,GP,TP,6.3x11,5	
C1SS32	BY130045	2401-001126	2401-001126	C-AL;330uF,20%,25V,WT,TP,10x12.5,5	
C1SS33	70796014	2401-002162	A1104-0290	C-AL;1000uF,20%,25V,WT,TP,10x20,5mm	
C1SS34	BY130045	2401-001126	2401-001126	C-AL;330uF,20%,25V,WT,TP,10x12.5,5	
C1SS35	70796291	2401-001992	A1104-0289	C-AL;2200UF,20%,10V,WT,TP,10X20MM,5	
C1SS36	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C1SS37	BY130281	2401-003046	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
C1SS38	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C1SS39	70796098	2301-000129	B1102-0125	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T	
C1SS40	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C1SS41	BY130270	2301-000423	2301-000423	C-FILM,PEF;3.3nF,5%,100V,TP,7X10X4.5MM,5	
C301	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C302	BY130024	2301-000283	61509-923-478	C-FILM,PEF;47nF,5%,100V,TP,7.3X7X3.2X5,5	
C303	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C304	70795080	2202-000216	2202-000216	C-CERAMIC,MLC-AXIAL;.027NF,5%,50V,SL,TP	
C305	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;.18NF,10%,50V,Y5P,TP	
C306	BY130264	2202-000814	2202-000814	C-CERAMIC,MLC-AXIAL;390pF,10%,50V,Y5P,TP	
C307	70795076	2202-000162	61407-117-150	C-CERAMIC,MLC-AXIAL;.015NF,5%,50V,SL,TP	
C308	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C309	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C310	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C311	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-.6.3x7,5	
C312	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C313	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C314	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C315	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C316	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C318	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C320	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C321	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C322	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C323	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C324	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C325	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C326	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C327	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C328	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C329	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C330	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C331	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C332	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C333	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C334	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C335	70795114	2401-001915	A1104-0608	C-AL;1uF,20%,50V,GP,TP,3x5,5	
C336	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C337	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C338	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C339	BY130021	2202-000854	A1100-0505	C-CERAMIC,MLC-AXIAL;47NF,30%,50V,Y5R,TP	
C340	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C341	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C342	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C343	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C345	BY130260	2201-002031	2201-002031	C-CERAMIC,DISC;5pF,0.25pF,50V,NPO,TP,5x3	
C346	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C347	BY130173	2202-000286	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1	
C348	BY130173	2202-000286	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1	
C349	BY130265	2202-000849	2202-000849	C-CERAMIC,MLC-AXIAL;18pF,5%,50V,CH,TP,3	
C350	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C360	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C380	70795616	2202-000243	61407-117-330	C-CERAMIC,MLC-AXIAL;33pF,5%,50V,SL,TP,3	
C381	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C390	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C399	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A01	70795626	2401-003122	2401-003122	C-AL;4.7uF,20%,50V,LL,TP,4X7,1.5	
C3A02	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A04	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A07	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3A08	BY130041	2301-001014	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A09	BY130041	2301-001014	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A10	BY130085	2301-000314	2301-000314	C-FILM,PEF;8.2nF,5%,50V,TP,6.5x3.0x5,5mm	
C3A11	70693281	2301-000392	61507-121-481	C-FILM,PEF;15nF,5%,50V,TP,6.5x8.5x3.2mm,	
C3A12	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C3A13	BY130269	2301-000161	2301-000161	C-FILM,PEF;12nF,5%,50V,6.5X5.5X3.0X5,5mm	
C3A14	BY130041	2301-001014	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A15	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3A16	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C3A17	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-.6.3x7,5	
C3A18	70795094	2301-000402	61507-121-341	C-FILM,PEF;1nF,5%,50V,TP,5x7x2.8mm,5mm	
C3A21	BY130267	2301-000008	2301-000008	C-FILM,PEF;2.2nF,5%,50V,TP,5.5X7X3,5mm	
C3A23	BY130277	2401-001169	2401-001169	C-AL;33UF,20%,16V,GP,-.6.3X7,2.5MM	
C3A24	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A25	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-.6.3x7,5	
C3A29	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A30	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3D01	BY130024	2301-000283	61509-923-478	C-FILM,PEF;47nF,5%,100V,TP,7.3X7X3.2X5,5	
C3D02	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3D03	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3D04	70699067	2301-000445	61507-121-431	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
C3D05	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C402	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C403	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description , Specification	Remark
C404	BY130276	2401-001074	2401-001074	C-AL;330NF,20%,50V,GP,TP,4X5,2.5MM	
C405	BY130281	2401-003046	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
C407	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C410	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N01	70795338	2202-000848	A1100-0563	C-CERAMIC,MLC-AXIAL;1.5NF,30%,50V,Y5S,TP	
C4N02	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N03	70693317	2202-000806	61407-117-223	C-CERAMIC,MLC-AXIAL;220pF,10%,50V,Y5P,TP	
C4N04	BY130274	2401-000661	2401-000661	C-AL;2.2uF,20%,50V,GP,TP,5x11,5	
C4N05	70795585	2301-000383	61507-121-471	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
C4N06	70795585	2301-000383	61507-121-471	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
C4N07	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C4N08	70795338	2202-000848	A1100-0563	C-CERAMIC,MLC-AXIAL;1.5NF,30%,50V,Y5S,TP	
C4N09	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N10	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N11	BY130279	2401-002062	2401-002062	C-AL;3.3UF,20%,50V,GP,TP,5X11,2.5	
C4N12	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N13	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N14	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N15	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N16	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C4N17	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C4N18	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C4N19	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3	
C4N21	BY130261	2201-002069	2201-002069	C-CERAMIC,DISC;1.5pF,0.25pF,50V,NPO,TP,4	
C4N22	BY130261	2201-002069	2201-002069	C-CERAMIC,DISC;1.5pF,0.25pF,50V,NPO,TP,4	
C4N23	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C4N24	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C501	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C502	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C503	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C504	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C505	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C506	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C507	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C508	70699067	2301-000445	61507-121-431	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
C509	BY130270	2301-000423	2301-000423	C-FILM,PEF;3.3NF,5%,100V,TP,7X10X4.5MM,5	
C510	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C511	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C512	BY130266	2202-000863	2202-000863	C-CERAMIC,MLC-AXIAL;560pF,10%,50V,Y5P,TP	
C513	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C514	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C515	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C516	BY130270	2301-000423	2301-000423	C-FILM,PEF;3.3NF,5%,100V,TP,7X10X4.5MM,5	
C517	70699067	2301-000445	61507-121-431	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
C518	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C519	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C520	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C521	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C522	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C523	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C524	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C525	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C526	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C527	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C529	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C530	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C531	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C532	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C601	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C602	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C603	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C604	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C605	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C607	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C608	70796210	2401-000118	A1104-0476	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C610	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C611	70693281	2301-000392	61507-121-481	C-FILM,PEF;15nF,5%,50V,TP,6.5x8.5x3.2mm,	
C612	70796210	2401-000118	A1104-0476	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C614	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C618	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm	
C619	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C620	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C621	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm	
C622	70693497	2301-000471	61507-121-571	C-FILM,PEF;68nF,5%,50V,TP,9x12x4.5mm,5mm	
C623	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,480-20%,25V,Y5V	
C624	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1	
C625	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1	
C626	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1	
C627	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C628	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C633	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C634	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C635	BY130072	2202-000183	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
C636	BY130072	2202-000183	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
C637	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C638	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-6.3x7.5	
C639	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C640	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C641	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7.5	
C645	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7.5	
C646	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C691	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C692	70693497	2301-000471	61507-121-571	C-FILM,PEF;68nF,5%,50V,TP,9x12x4.5mm,5mm	
C6B01	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B02	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B03	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7.5	
C6B04	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6B05	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C6B09	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7.5	
C6P01	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C6P02	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11.5	
C6P03	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6P04	70795080	2202-000216	2202-000216	C-CERAMIC,MLC-AXIAL;.027NF,5%,50V,SL,TP	
C6P05	70795080	2202-000216	2202-000216	C-CERAMIC,MLC-AXIAL;.027NF,5%,50V,SL,TP	
C6P06	BY130271	2301-000458	2301-000458	C-FILM,PEF;56nF,5%,50V,TP,8x12x4.5mm,5mm	
C6P07	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7.5	
C6P08	BY130173	2202-000286	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1	
C6P10	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7.5	
C6P11	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7.5	
C6P12	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11.5	
C6P13	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6P14	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3	
C6P20	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3	
C701	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7.5	
C702	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C703	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C706	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C707	70795626	2401-003122	2401-003122	C-AL;4.7uF,20%,50V,LL,TP,4x7.1.5	
C708	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C711	70795076	2202-000162	61407-117-150	C-CERAMIC,MLC-AXIAL;.015NF,5%,50V,SL,TP	
C712	70795076	2202-000162	61407-117-150	C-CERAMIC,MLC-AXIAL;.015NF,5%,50V,SL,TP	
C816	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7.5	
C821	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C822	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C828	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3	
C829	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3	
C830	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7.5	
C831	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C832	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7.5	
C833	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C837	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C838	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C841	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
<b>&lt;RESISTORS&gt;</b>					
R1P103	BY230022	2001-000034	2001-000034	R-CARBON;220OHM,5%,1/4W,AA,TP,-	
R1P105	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P106	BY230024	2001-000611	2001-000611	R-CARBON;3.9KOHM,5%,1/4W,AA,TP,-	
R1P107	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P108	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P109	70795061	2001-000038	61048-227-391	R-CARBON;390ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1P110	70795061	2001-000038	61048-227-391	R-CARBON;390ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1P111	BY230166	2001-000110	2001-000110	R-CARBON;10ohm,5%,1/4,AA,TP,2.4X6.4mm	
R1P112	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P115	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P116	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P117	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P119	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P120	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P121	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R1P122	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P123	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P125	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1P127	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R1P128	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R1SD11	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4m	
R1SD12	70795003	2001-000302	61048-177-100	R-CARBON;10ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SD13	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4m	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R1SD14	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1SD15	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1SD16	70796274	2003-000273	A1004-0198	R-METAL OXIDE;33Kohm,5%,2W,AA,TP,6x16mm	
R1SD31	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SD32	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R1SS10	BY230170	2006-000262	2006-000262	R-CEMENT;2.7ohm,10%,2W,CB,ST,7.5x11x20.	
R1SS11	70796274	2003-000273	A1004-0198	R-METAL OXIDE;33Kohm,5%,2W,AA,TP,6x16mm	
R1SS13	BY230003	2003-000148	A1004-0227	R-METAL OXIDE;100OHM,5%,2W,AE,TP,6X16MM	
R1SS31	70795009	2001-000440	61048-177-109	R-CARBON;1ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SS32	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R1SS33	70795640	2004-000869	A1006-0592	R-METAL;3Kohm,1%,1/8W,AA,TP,1.8x3.2mm	
R1SS34	70795638	2004-000459	A1006-0423	R-METAL;2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	
R301	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R302	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R304	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R305	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R306	70795012	2001-000232	61048-177-132	R-CARBON;1.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R308	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R309	BY230037	2001-000723	2001-000723	R-CARBON;4.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R311	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R312	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R313	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R314	70795050	2001-000924	61048-177-681	R-CARBON;680ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R315	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R316	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R317	70795030	2001-000003	61048-177-331	R-CARBON;330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R318	70795030	2001-000003	61048-177-331	R-CARBON;330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R320	BY230096	2001-000009	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,-	
R321	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R322	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R325	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R326	70795043	2001-000832	61048-177-511	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R327	70795043	2001-000832	61048-177-511	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R328	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R329	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R330	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R331	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R332	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R333	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R334	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R335	70795044	2001-000800	61048-177-512	R-CARBON;5.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R336	70795014	2001-000008	61048-177-153	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R341	70795059	2001-001000	61048-177-823	R-CARBON;82Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R342	BY230038	2001-000812	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R343	BY230010	2001-001031	61048-177-913	R-CARBON;91Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R346	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R347	70795049	2001-000904	61048-177-621	R-CARBON;620ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R348	70795609	2001-000605	61048-177-362	R-CARBON;3.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A01	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R3A04	70795012	2001-000232	61048-177-132	R-CARBON;1.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A05	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A06	70795607	2001-000405	61048-177-181	R-CARBON;180ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A07	70795033	2001-000645	61048-177-334	R-CARBON;330Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A08	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R3A09	70795046	2001-000802	61048-177-562	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A10	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3A11	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R3A12	70796025	2001-000458	61048-177-229	R-CARBON;2.2ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A13	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R3A14	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A16	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R3A17	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A18	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A19	70795607	2001-000405	61048-177-181	R-CARBON;180ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A21	70795049	2001-000904	61048-177-621	R-CARBON;620ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A22	BY230037	2001-000723	2001-000723	R-CARBON;4.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A23	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A24	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A25	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R3A26	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R3A28	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A30	70795354	2001-000773	61048-177-474	R-CARBON;470Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A37	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3D01	70796129	2001-000793	61048-177-470	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D02	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D03	70795042	2001-000745	61048-177-479	R-CARBON;4.7ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R401	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R402	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R403	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	



Loc.No	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R404	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R405	BY230165	2001-000044	2001-000044	R-CARBON;1.2Kohm,5%,1/4W,AA,TP,2.4x6.4m	
R406	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R407	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R408	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R4N01	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R4N02	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N03	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N04	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N05	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N06	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R501	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R502	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R503	70795057	2001-000995	61048-177-821	R-CARBON;820OHM,5%,1/8W,AA,TP,-	
R504	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R505	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R506	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R507	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R508	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R509	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R510	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R511	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R512	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R514	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R516	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R517	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R518	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R519	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R520	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R521	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R522	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R523	70795022	2001-000508	61048-177-224	R-CARBON;220Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R524	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R525	70795506	2001-000577	61048-177-202	R-CARBON;2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R533	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R540	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R570	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R571	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R604	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R605	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R608	70795047	2001-000864	61048-177-563	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R609	70795047	2001-000864	61048-177-563	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R613	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R641	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R642	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R644	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R650	70796369	2003-000259	A1004-0357	R-METAL OXIDE;3.9OHM,5%,2W,AE,TP,6X16MM	
R651	70795052	2001-000010	61048-177-683	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R652	70795024	2001-000568	61048-177-270	R-CARBON;27ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R654	BY230038	2001-000812	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R655	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R656	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R657	70795052	2001-000010	61048-177-683	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R660	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R661	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R666	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R667	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R668	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R669	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R670	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R671	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R672	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R673	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R674	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R675	BY230164	2001-000032	2001-000032	R-CARBON;180ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R676	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R677	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R678	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R679	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R682	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R685	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R687	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R690	70795047	2001-000864	61048-177-563	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R691	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R692	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R693	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R694	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R695	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	



## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
R696	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R6B01	70796024	2001-000384	61048-177-161	R-CARBON;160ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6B02	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6B03	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6B10	70796067	2001-000362	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R6B11	70796067	2001-000362	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R6P01	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P02	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P03	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R6P04	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R6P05	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R6P06	BY230038	2001-000812	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R6P07	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P08	70795028	2001-000007	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R6P11	BY230090	2001-000005	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,-	
R706	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R707	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R708	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R709	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R710	70795008	2001-000435	61048-177-105	R-CARBON;1Mohm,5%,1/8W,AA,TP,1.8x3.2mm	
R727	70795014	2001-000008	61048-177-153	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R728	70795014	2001-000008	61048-177-153	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R731	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R732	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R803	BY230167	2001-000116	2001-000116	R-CARBON;820ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R805	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R806	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R807	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R808	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R810	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R811	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R812	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R813	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R814	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R815	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R816	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R821	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R822	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W072	70795004	2001-000281	61048-177-101	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
W229	70795609	2001-000605	61048-177-362	R-CARBON;3.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
<b>&lt;MISCELLANEOUS&gt;</b>					
CN1SS1	70796223	3711-000178	A6010-0459	CONNECTOR-HEADER;1WALL,2P,1R,3.96mm,STRA	
CN301	70796387	3708-000391	A6013-0942	CONNECTOR-FPC/FC/PIC;10P,1.25MM,STRAIGHT	
CN3A01	BY634038	3708-001302	3708-001302	CONNECTOR-FPC/FC/PIC;7P,1.25mm,STRAIGHT,	
CN3A02	70796246	3711-002445	B6010-0915	CONNECTOR-HEADER;BOX,2P,2R,1.5MM,STRAIGH	
CN4N01	BY634116	3711-003176	3711-003176	CONNECTOR-HEADER;NOWALL,10P,1R,2.5mm,ANG	
CN601	BY634047	AC39-20817S	AC39-20817S	LEAD CONNECTOR-ASSY;DPSMH200-02,YBH200-	
CN602	BY634003	3708-001163	3708-001163	CONNECTOR-FPC/FC/PIC;5P,1.25mm,STRAIGHT,	
CN604	BY634026	3711-003749	3711-003749	CONNECTOR-HEADER;BOX,8P,2R,2mm,STRAIGHT,	
CN701	70795274	3711-001198	A6010-0264	CONNECTOR-HEADER;NOWALL,10P,1R,2mm,ANGLE	
CN702	70795274	3711-001198	A6010-0264	CONNECTOR-HEADER;NOWALL,10P,1R,2mm,ANGLE	
CN704	BY634040	3711-004013	3711-004013	CONNECTOR-HEADER;3WALL,10P,1R,2mm,STRAIG	
CN705	BY634039	3710-001385	3710-001385	CONNECTOR-SOCKET;10P,1R,2mm,ANGLE,SN	
DT701	BY634119	AC07-20051C	AC07-20051C	VF-DISPLAY;SVV-07SS27,15SEG,20.5X75.0,SV	
F1SS01	BY634112	3601-001123	3601-001123	FUSE-FERRULE;250V,1.6A,TIME-LAG,CERAMIC,	△
JC801	BY634117	3722-001093	3722-001093	JACK-RCA;42P,3.81MM,SN,BLU/BLK,#20-28	
JC802	BY634121	AC37-22002E	AC37-22002E	JACK-PIN;3.5MM,DPAE9634,2P,TR,-	
PT1SS1	BY634120	AC26-00001A	AC26-00001A	TRANS-SWITCHING;-230V,DEMCO,EE2821,0.5M	△
RM701	BY634036	AC59-60060A	AC59-60060A	MODULE-REMOCON;GP1U281R,SHARP,38KHZ,-,-,	
SW601	BY632004	AC34-20100A	AC34-20100A	SWITCH-MODE;-,-,X-9,-	
SW602	BY632005	AC34-20100B	AC34-20100B	SWITCH-REC;-,-,X-9,-	
SW701	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW708	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW711	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW711	70795181	3404-001008	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm	
SW713	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW714	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW715	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW716	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW717	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW718	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW801	BY632010	3404-000135	3404-000135	SWITCH-TACT;12V,50mA,160+-50gf,7.4x7.1mm	
TM401	BY630053	AC40-30072H	AC40-30072H	TM-BLOCK;TCMK0601PD08A,PAL-BG/I/DK,HI-F	
VA1SS1	BY634022	1405-001026	1405-001026	VARIATOR;470V,600A,9x7mm,TP	△
XT301	BY633009	2801-001397	2801-001397	CRYSTAL-UNIT;4.433619MHZ,HC-49/U-S 15PPM	
XT4N01	BY633011	2801-003171	2801-003171	CRYSTAL-UNIT;18.432MHz,20PPM,28-AAM,4PF,	
XT601	BY633003	2801-003318	2801-003318	CRYSTAL-UNIT;32.768KHz,20ppm,28-AAP,12.5	
XT602	BY633010	2801-003139	2801-003139	CRYSTAL-UNIT;8MHz,50ppm,28-AAA,22pF,80oh	
XT701	BY633010	2801-003139	2801-003139	CRYSTAL-UNIT;8MHz,50ppm,28-AAA,22pF,80oh	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
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**V-709B****-PACKING PARTS-**

A701	BY634210	AC69-50913X	AC69-50913X	PACKING CASE;V-709B,-,-428,-
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,M-685
UT01	BY634129	AC59-00005B	AC59-00005B	REMOCON-ASSY;-VT-629B,-,45KEY,V-709B,-
Y101	BY634152	AC68-00156A	AC68-00156A	MANUAL-USERS;V-729B,MOJO100,-,ENG,-
Y102	BY634127	AC39-42001L	AC39-42001L	CABLE-RF ASSY;PAL,-,1.2M,-,-,-

**-INSTRUMENT PARTS-**

1	BY730404	AC97-00122B	AC97-00122B	ASSY-PANEL FRONT;V-709B/TSB,HIPS94HB,GRA
21	BY730331	AC64-52175D	AC64-52175D	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V
22	BY730093	AC61-62032A	AC61-62032A	SPRING-MASK;X-9,-,SUS,-,4.4,-,SV-C130
101	BY730312	AC64-30899B	AC64-30899B	CABINET-TOP;V-629G/TSB,PCM MD552,SECC,TO
102	BY730280	AC63-32128A	AC63-32128A	COVER-BOTTOM;SV-C140F,SECC,387.7X197.6,T
153	70790218	AC60-12126A	67158-240-121	SCREW-BH;-BH,-,4*12,FE,FZY,-,-,-
155	70790082	AC60-12134A	67158-240-163	SCREW-TAP BH;-BH,-,2-4X16,-,FE
156	BY730204	AC60-00001A	AC60-00001A	SCREW-MACHINE;-BH,*4X12,M4,L12,BLK,SMC
157	70790002	AC60-10063A	60504-0040-00	SCREW-TAPTITE;BH,+,-,M3,L12,ZPC3,SWRCH18
200	BY634126	AC39-12022K	AC39-12022K	POWER-CORD;Y352160,H03VVH2-F,-,BS6500,1.
CN3A1S	BY634118	3809-001111	3809-001111	CABLE-FLAT;30V,80C,130mm,7P,1.25mm,UL289
CN602A	BY634007	3809-001049	3809-001049	CABLE-FLAT;30V,80C,100MM,5P,1.25MM,UL289
LD601S	BY730082	AC61-21009A	AC61-21009A	HOLDER-LED;-POM(M90-44),-BLK,-,X-9
S601S	BY730080	AC61-21008A	AC61-21008A	HOLDER-SENSOR;-POM(M90-44),-BLK,-,X-9
S602S	BY730080	AC61-21008A	AC61-21008A	HOLDER-SENSOR;-POM(M90-44),-BLK,-,X-9
TM401B	BY730221	AC61-11061C	AC61-11061C	CONNECTOR BOARD-ASSY;V-629F/TSB,HIPS94,H

**-MECHANICAL PARTS-**

SAME AS V-729B

**-ELECTRICAL PARTS-**

601	BY630061	AC92-00029A	AC92-00029A	ASSY-PCB-MAIN;V-709B/TSB,2S,VFD,PDC
602	BY630080	AC93-10860V	AC93-10860V	ASSY-SUB(F-NICAM);SV-627F/XEF,PAL COBRA
701	BY630081	AC93-10866X	AC93-10866X	ASSY-F/TIMER;COBRA-PAL,VFD

**<INTEGRATED CIRCUITS>**

IC1SS1	BY530004	0604-001028	0604-001028	PHOTO-COUPLER;TR,50-600%,250mW,DIP-4,ST
IC1SS2	70795271	AC14-12006D	A4008-0757	IC;KA431Z,TO-92,TAPING
IC301	BY631061	1204-001410	1204-001410	IC-VIDEO PROCESS;LA71590M,QFP,100P,-,PLA
IC4N01	BY631063	1204-001516	1204-001516	IC-AUDIO PROCESSOR;MSP3417D,DIP,52P,551M
IC501	BY631023	1204-001479	1204-001479	IC-AUDIO PROCESSOR;LA72634AM,QFP,64P,400
IC601	BY631033	AC09-00024B	AC09-00024B	IC-MCU;UPD784927GF-119-3BA,100P,-,N90-11
IC602	BY631022	1003-001162	1003-001162	IC-MOTOR DRIVER;KA3082,SIP,10PIN,25MIL,D
IC604	70795269	AC14-12006C	AC14-12006C	IC;KA7533,DIP,-
IC605	BY631058	1103-001101	1103-001101	IC-EEPROM;24C08,1028x8BIT,DIP,8P,300MIL,
IC608	BY631059	1203-000515	1203-000515	IC-VOL. DETECTOR;7042,TO-92,3P,177MIL,PL
IC6P01	BY631068	AC09-12014Z	AC09-12014Z	IC-MCU;LC74776M,30P,MFP,OSD/VPS/PDC I
IC701	BY631011	1003-001034	1003-001034	IC-VFD;UPD16312,QFP,44P,9.5MIL,-,9.5M

**<TRANSISTORS>**

PT601	BY530005	0604-001122	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,
PT602	BY530005	0604-001122	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,
Q1P101	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L
Q1P102	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L
Q1P103	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L
Q1P104	70693410	0501-000610	0501-000610	TR-SMALL SIGNAL;KSA928A-Y,NPN,1W,TO-92L,
Q1P105	70795137	0504-000116	62137-701-010	TR-DIGITAL;KSR1001,NPN,300mW,4.7K-4.7K,T
Q1P106	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9
Q1P107	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92
Q1P109	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q1P110	70693238	0504-000118	62137-701-012	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-
Q1P111	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
Q1P112	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92
Q1P114	70693265	0501-000616	62137-302-441	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L
Q1P115	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
Q1P116	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q1P117	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9
Q1SR01	BY631060	1203-001049	1203-001049	IC-PWM CONTROLLER;1L0380,TO-220F,4P,10MI
Q302	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T
Q303	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q304	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q308	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q309	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q310	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,4.7K-4.7K,TO-
Q3A01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T
Q3A03	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9
Q3A04	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9
Q3A05	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9

# Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
Q3A06	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q3D01	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q3D02	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3D03	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q602	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q6P01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q6P02	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q6P03	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q701	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q802	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q803	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q804	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
S601	BY530003	0603-001011	0603-001011	PHOTO-TR;NPN,35V,6V,50mA,75mW,BK	
S602	BY530003	0603-001011	0603-001011	PHOTO-TR;NPN,35V,6V,50mA,75mW,BK	

## <DIODES>

D1P101	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P103	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P104	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P105	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P108	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P109	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P110	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P111	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P113	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P115	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P117	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P118	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P119	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1SD31	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SD32	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS01	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS02	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS03	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS04	BY430012	0402-001196	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS11	BY430008	0402-000276	0402-000276	DIODE-RECTIFIER;UF4007,1KV,1A,DO-41,TP	
D1SS12	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS31	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS32	BY430010	0402-001194	0402-001194	DIODE-RECTIFIER;UG2D,200V,2A,DO-204AC,TP	
D1SS33	BY430065	0404-001069	0404-001069	DIODE-SCHOTTKY;B10A45V,45V,10A,TO-220IS	
D1SS44	BY430011	0402-001195	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D302	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D401	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D4N01	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D603	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D604	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D605	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D611	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D620	70796385	0402-000127	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D701	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D702	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D703	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D704	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D705	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D707	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D708	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D709	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D805	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
LD601	BY430016	0601-000517	0601-000517	LED-IR;RECTANGULA,4x6.0mm,75mW,6V,950	
LD701	70796042	0601-000494	A4150-0089	LED-IR;ROUND,5mm,140mW,5V,940nm,-	
LD702	70796042	0601-000494	A4150-0089	LED-IR;ROUND,5mm,140mW,5V,940nm,-	
LD703	BY430066	0601-001201	0601-001201	LED;ROUND,RED,3mm,635nm	
ZD1P01	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD1P02	BY430005	0403-000717	0403-000717	DIODE-ZENER;MTZJ5.1B,5.1V,4.94-5.2V,500m	
ZD1P03	BY430013	0403-000720	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	
ZD1SF1	70796158	0403-000539	62169-423-030	DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500m	
ZD1SF2	70795591	0403-000294	A4106-0006	DIODE-ZENER;MTZ4.7B,4.7V,4.55-4.80V,500m	
ZD401	70795272	0403-000390	A4106-0062	DIODE-ZENER;UZP33B,33V,31.4-34.6V,1W,DO-	
ZD701	BY430014	0403-001141	0403-001141	DIODE-ZENER;MTZJ24D,24V,23.63-24.85V,500	
ZD702	BY430004	0403-000509	0403-000509	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
ZD801	BY430064	0403-000595	0403-000595	DIODE-ZENER;MTZJ6.2,6.2V,5.78-6.44V,500m	

## <INDUCTORS>

BD1SD1	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SF1	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SS2	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
BD1SS3	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
FL3A01	BY330004	AC27-80100A	AC27-80100A	COIL-OSC;126QN-K5272YHC=K,-,-,AM	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
FL3D01	BY330055	AC27-82001C	AC27-82001C	COIL-BIAS OSC;B02,W(TOKO)VX1850,-	
L1SS01	BY330056	AC29-30050B	AC29-30050B	FILTER-LINE NOISE;-400uH,-,AC250V,TR12.	
L1SS02	BY330008	AC29-30050C	AC29-30050C	FILTER-LINE NOISE;-25MH,0.35A,AC250V,BS	
L1SS31	70796213	AC27-12001N	A1130-0092	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L1SS32	70796213	AC27-12001N	A1130-0092	COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L301	70795841	2701-000206	62427-010-294	INDUCTOR-AXIAL;56UH,5%,2.4X3.4MM	
L302	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L303	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L304	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L305	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L306	70796361	2701-000119	62427-020-121	INDUCTOR-AXIAL;120UH,5%,2.4X3.4MM	
L310	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3A01	70795171	2702-000120	62427-813-153	INDUCTOR-RADIAL;15mH,5%,6.2x7.4mm	
L3A02	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L3A03	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3D01	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L401	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L402	BY330003	3301-000297	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400.	
L4N01	70796075	2701-000188	62427-020-479	INDUCTOR-AXIAL;4.7UH,5%,2.4X3.4MM	
L4N02	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L4N03	70796075	2701-000188	62427-020-479	INDUCTOR-AXIAL;4.7UH,5%,2.4X3.4MM	
L4N04	BY330003	3301-000297	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400.	
L502	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L503	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L601	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L603	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L604	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L605	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L6P03	70795162	2701-000160	62427-020-220	INDUCTOR-AXIAL;22UH,5%,2.4X3.4MM	
L6P04	BY330054	2701-000201	2701-000201	INDUCTOR-AXIAL;5.6UH,5%,2.4X3.4MM	
L6P05	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L701	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L702	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L803	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L804	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L807	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L808	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L809	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L810	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L811	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L812	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L813	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	
L814	70795644	AC27-92001M	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,-	

**<CAPACITORS>**

C1P101	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5
C1P102	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
C1P103	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5
C1P104	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5
C1P105	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm
C1P106	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
C1P107	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5
C1P108	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm
C1P110	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5
C1P113	70795114	2401-001915	A1104-0608	C-AL;1uF,20%,50V,GP,TP,3x5,5
C1P114	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5
C1P115	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5
C1P116	70795114	2401-001915	A1104-0608	C-AL;1uF,20%,50V,GP,TP,3x5,5
C1SD03	70795417	2201-000934	A1100-0580	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x
C1SD04	70795417	2201-000934	A1100-0580	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x
C1SD11	BY130283	2401-003302	2401-003302	C-AL;47uF,20%,400V,GP,TP,18X31,5,7
C1SD12	BY130268	2301-000140	2301-000140	C-FILM,PEF;10nF,10%,630V,BK,16.5X9.5X5.7
C1SF12	BY130284	2401-000015	2401-000015	C-AL;33uF,20%,50V,WT,-,6.3x11mm,2,5
C1SF13	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm
C1SF14	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5
C1SF15	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm
C1SS01	BY130272	2305-001021	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13
C1SS02	BY130272	2305-001021	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13
C1SS12	BY130258	2201-000129	2201-000129	C-CERAMIC,DISC;100pF,10%,1KV,Y5P,TP,6x5
C1SS31	70795431	2401-000385	61637-511-100	C-AL;10uF,20%,100V,GP,TP,6.3x11,5
C1SS32	BY130045	2401-001126	2401-001126	C-AL;330uF,20%,25V,WT,TP,10x12,5,5
C1SS33	70796014	2401-002162	A1104-0290	C-AL;1000uF,20%,25V,WT,TP,10x20,5mm
C1SS34	BY130045	2401-001126	2401-001126	C-AL;330uF,20%,25V,WT,TP,10x12,5,5
C1SS35	70796291	2401-001992	A1104-0289	C-AL;2200UF,20%,10V,WT,TP,10X20MM,5
C1SS36	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP
C1SS37	BY130281	2401-003046	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2,5
C1SS38	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP
C1SS39	70796098	2301-000129	B1102-0125	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T
C1SS40	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C1SS41	BY130270	2301-000423	2301-000423	C-FILM,PEF;3.3NF,5%,100V,TP,7X10X4.5MM,5	
C301	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C302	BY130024	2301-000283	61509-923-478	C-FILM,PEF;47nF,5%,100V,TP,7.3X7X3.2X5.5	
C303	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C304	70795080	2202-000216	2202-000216	C-CERAMIC,MLC-AXIAL;.027NF,5%,50V,SL,TP,	
C305	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;.18NF,10%,50V,Y5P,TP	
C306	BY130264	2202-000814	2202-000814	C-CERAMIC,MLC-AXIAL;390pF,10%,50V,Y5P,TP	
C307	70795076	2202-000162	61407-117-150	C-CERAMIC,MLC-AXIAL;.015NF,5%,50V,SL,TP,	
C308	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C309	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C310	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C311	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C312	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C313	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C314	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C315	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C316	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C318	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C320	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C321	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C322	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C323	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C324	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C325	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C326	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C327	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C328	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C329	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C330	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C331	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C332	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C333	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C334	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C335	70795114	2401-001915	A1104-0608	C-AL;1uF,20%,50V,GP,TP,3x5,5	
C336	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C337	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C338	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C339	BY130021	2202-000854	A1100-0505	C-CERAMIC,MLC-AXIAL;47NF,30%,50V,Y5R,TP,	
C340	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C341	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C342	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C343	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C345	BY130260	2201-002031	2201-002031	C-CERAMIC,DISC;5pF,0.25pF,50V,NPO,TP,5x3	
C346	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C347	BY130173	2202-000286	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
C348	BY130173	2202-000286	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
C349	BY130265	2202-000849	2202-000849	C-CERAMIC,MLC-AXIAL;18pF,5%,50V,CH,TP,3.	
C350	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C360	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C380	70795616	2202-000243	61407-117-330	C-CERAMIC,MLC-AXIAL;33pF,5%,50V,SL,TP,3.	
C381	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C390	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C399	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A01	70795626	2401-003122	2401-003122	C-AL;4.7uF,20%,50V,LL,TP,4X7,1.5	
C3A02	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A04	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A07	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3A08	BY130041	2301-001014	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A09	BY130041	2301-001014	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A10	BY130085	2301-000314	2301-000314	C-FILM,PEF;8.2nF,5%,50V,TP,6.5x3.0x5.5mm	
C3A11	70693281	2301-000392	61507-121-481	C-FILM,PEF;15nF,5%,50V,TP,6.5x8.5x3.2mm,	
C3A12	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C3A13	BY130269	2301-000161	2301-000161	C-FILM,PEF;12nF,5%,50V,6.5X5.5X3.0X5,5mm	
C3A14	BY130041	2301-001014	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C3A15	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3A16	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C3A17	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C3A18	70795094	2301-000402	61507-121-341	C-FILM,PEF;1nF,5%,50V,TP,5x7x2.8mm,5mm	
C3A21	BY130267	2301-000008	2301-000008	C-FILM,PEF;2.2nF,5%,50V,TP,5.5X7X3,5mm	
C3A23	BY130277	2401-001169	2401-001169	C-AL;33UF,20%,16V,GP,-,6.3X7,2.5MM	
C3A24	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A25	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C3A29	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A30	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3D01	BY130024	2301-000283	61509-923-478	C-FILM,PEF;47nF,5%,100V,TP,7.3X7X3.2X5.5	
C3D02	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3D03	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3D04	70699067	2301-000445	61507-121-431	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
C3D05	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C402	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C403	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C404	BY130276	2401-001074	2401-001074	C-AL;330NF,20%,50V,GP,TP,4X5,2.5MM	
C405	BY130281	2401-003046	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
C407	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C410	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N01	70795338	2202-000848	A1100-0563	C-CERAMIC,MLC-AXIAL;1.5NF,30%,50V,Y5S,TP	
C4N02	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N03	70693317	2202-000806	61407-117-223	C-CERAMIC,MLC-AXIAL;220pF,10%,50V,Y5P,TP	
C4N04	BY130274	2401-000661	2401-000661	C-AL;2.2uF,20%,50V,GP,TP,5x11,5	
C4N05	70795585	2301-000383	61507-121-471	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
C4N06	70795585	2301-000383	61507-121-471	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
C4N07	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C4N08	70795338	2202-000848	A1100-0563	C-CERAMIC,MLC-AXIAL;1.5NF,30%,50V,Y5S,TP	
C4N09	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N10	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N11	BY130279	2401-002062	2401-002062	C-AL;3.3uF,20%,50V,GP,TP,5X11,2.5	
C4N12	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N13	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N14	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C4N15	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C4N16	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C4N17	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C4N18	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C4N19	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C4N21	BY130261	2201-002069	2201-002069	C-CERAMIC,DISC;1.5pF,0.25pF,50V,NPO,TP,4	
C4N22	BY130261	2201-002069	2201-002069	C-CERAMIC,DISC;1.5pF,0.25pF,50V,NPO,TP,4	
C4N23	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C4N24	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C501	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C502	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C503	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-6.3x7,5	
C504	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C505	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C506	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-6.3x7,5	
C507	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-6.3x7,5	
C508	70699067	2301-000445	61507-121-431	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
C509	BY130270	2301-000423	2301-000423	C-FILM,PEF;3.3NF,5%,100V,TP,7X10X4.5MM,5	
C510	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C511	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C512	BY130266	2202-000863	2202-000863	C-CERAMIC,MLC-AXIAL;560pF,10%,50V,Y5P,TP	
C513	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C514	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C515	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C516	BY130270	2301-000423	2301-000423	C-FILM,PEF;3.3NF,5%,100V,TP,7X10X4.5MM,5	
C517	70699067	2301-000445	61507-121-431	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
C518	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-6.3x7,5	
C519	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C520	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C521	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-6.3x7,5	
C522	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C523	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C524	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C525	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C526	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C527	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C529	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C530	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C531	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C532	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C601	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C602	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C603	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C604	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C605	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C607	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C608	70796210	2401-000118	A1104-0476	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C610	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C611	70693281	2301-000392	61507-121-481	C-FILM,PEF;15nF,5%,50V,TP,6.5x8.5x3.2mm,	
C612	70796210	2401-000118	A1104-0476	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
C614	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C618	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm	
C619	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C620	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C621	BY130048	2401-002095	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5mm	
C622	70693497	2301-000471	61507-121-571	C-FILM,PEF;68nF,5%,50V,TP,9x12x4.5mm,5mm	
C623	70693249	2202-000807	61407-117-228	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C624	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.	
C625	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C626	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.	
C627	70795614	2202-000205	61407-117-220	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.	
C628	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C633	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C634	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C635	BY130072	2202-000183	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
C636	BY130072	2202-000183	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
C637	BY130172	2202-000263	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C638	70699092	2401-000918	61617-404-220	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C639	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C640	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C641	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C645	BY130282	2401-003107	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C646	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C691	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C692	70693497	2301-000471	61507-121-571	C-FILM,PEF;68nF,5%,50V,TP,9x12x4.5mm,5mm	
C6P01	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C6P02	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C6P03	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6P04	70795080	2202-000216	2202-000216	C-CERAMIC,MLC-AXIAL;027NF,5%,50V,SL,TP,	
C6P05	70795080	2202-000216	2202-000216	C-CERAMIC,MLC-AXIAL;027NF,5%,50V,SL,TP,	
C6P06	BY130271	2301-000458	2301-000458	C-FILM,PEF;56nF,5%,50V,TP,8x12x4.5mm,5mm	
C6P07	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C6P08	BY130173	2202-000286	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
C6P10	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C6P11	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C6P12	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C6P13	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C6P14	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C6P20	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C701	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C702	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C703	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C704	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C707	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C708	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C709	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C710	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C715	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C716	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C717	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C816	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C821	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C822	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C828	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C829	70693047	2202-000279	61407-117-470	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
C830	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C831	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C832	BY130136	2401-002299	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5	
C833	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C837	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C838	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C841	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
<b>&lt;RESISTORS&gt;</b>					
R1P103	BY230022	2001-000034	2001-000034	R-CARBON;220OHM,5%,1/4W,AA,TP,-	
R1P105	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P106	BY230024	2001-000611	2001-000611	R-CARBON;3.9KOHM,5%,1/4W,AA,TP,-	
R1P107	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P108	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P109	70795061	2001-000038	61048-227-391	R-CARBON;390ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1P110	70795061	2001-000038	61048-227-391	R-CARBON;390ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1P111	BY230166	2001-000110	2001-000110	R-CARBON;10ohm,5%,1/4,AA,TP,2.4X6.4mm	
R1P112	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P115	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P116	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P117	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P119	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P120	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P121	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R1P122	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P123	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P125	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P127	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R1P128	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SD11	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1SD12	70795003	2001-000302	61048-177-100	R-CARBON;10ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SD13	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1SD14	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4mm	



Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R1SD15	BY230168	2001-000317	2001-000317	R-CARBON;120Kohm,5%,1/4W,AA,TP,2.4x6.4mm	
R1SD16	70796274	2003-000273	A1004-0198	R-METAL OXIDE;33Kohm,5%,2W,AA,TP,6x16mm	
R1SD31	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SD32	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R1SS10	BY230170	2006-000262	2006-000262	R-CEMENT;2.7ohm,10%,2W,CB,ST,7.5x11x20.	
R1SS11	70796274	2003-000273	A1004-0198	R-METAL OXIDE;33Kohm,5%,2W,AA,TP,6x16mm	
R1SS13	BY230003	2003-000148	A1004-0227	R-METAL OXIDE;100OHM,5%,2W,AE,TP,6X16MM	
R1SS31	70795009	2001-000440	61048-177-109	R-CARBON;1ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1SS32	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R1SS33	70795640	2004-000869	A1006-0592	R-METAL;3Kohm,1%,1/8W,AA,TP,1.8x3.2mm	
R1SS34	70795638	2004-000459	A1006-0423	R-METAL;2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	
R301	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R302	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R304	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R305	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R306	70795012	2001-000232	61048-177-132	R-CARBON;1.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R308	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R309	BY230037	2001-000723	2001-000723	R-CARBON;4.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R311	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R312	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R313	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R314	70795050	2001-000924	61048-177-681	R-CARBON;680ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R315	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R316	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R317	70795030	2001-000003	61048-177-331	R-CARBON;330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R318	70795030	2001-000003	61048-177-331	R-CARBON;330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R320	BY230096	2001-000009	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,-	
R321	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R322	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R325	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R326	70795043	2001-000832	61048-177-511	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R327	70795043	2001-000832	61048-177-511	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R328	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R329	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R330	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R331	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R332	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R333	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R334	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R335	70795044	2001-000800	61048-177-512	R-CARBON;5.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R336	70795014	2001-000008	61048-177-153	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R341	70795059	2001-001000	61048-177-823	R-CARBON;82Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R342	BY230038	2001-000812	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R343	BY230010	2001-001031	61048-177-913	R-CARBON;91Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R346	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R347	70795049	2001-000904	61048-177-621	R-CARBON;620ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R348	70795609	2001-000605	61048-177-362	R-CARBON;3.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A01	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R3A04	70795012	2001-000232	61048-177-132	R-CARBON;1.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A05	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A06	70795607	2001-000405	61048-177-181	R-CARBON;180ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A07	70795033	2001-000645	61048-177-334	R-CARBON;330Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A08	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R3A09	70795046	2001-000802	61048-177-562	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A10	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3A11	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R3A12	70796025	2001-000458	61048-177-229	R-CARBON;2.2ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A13	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R3A14	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A16	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R3A17	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A18	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A19	70795607	2001-000405	61048-177-181	R-CARBON;180ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A21	70795049	2001-000904	61048-177-621	R-CARBON;620ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A22	BY230037	2001-000723	2001-000723	R-CARBON;4.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A23	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A24	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A25	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R3A26	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R3A28	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A30	70795354	2001-000773	61048-177-474	R-CARBON;470Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A37	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3D01	70796129	2001-000793	61048-177-470	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D02	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D03	70795042	2001-000745	61048-177-479	R-CARBON;4.7ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R401	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R402	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R403	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R404	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	



Loc. No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R405	BY230165	2001-000044	2001-000044	R-CARBON;1.2Kohm,5%,1/4W,AA,TP,2.4x6.4m	
R406	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R407	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R408	BY230019	2001-000221	11018-877-122	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-	
R4N01	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R4N02	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N03	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N04	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N05	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N06	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R501	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R502	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R503	70795057	2001-000995	61048-177-821	R-CARBON;820OHM,5%,1/8W,AA,TP,-	
R504	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R505	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R506	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R507	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R508	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R509	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R510	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R511	70795011	2001-000331	61048-177-123	R-CARBON;12KOHM,5%,1/8W,AA,TP,-	
R512	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R514	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R516	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R517	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R518	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R519	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R520	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R521	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R522	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R523	70795022	2001-000508	61048-177-224	R-CARBON;220Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R524	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R525	70795506	2001-000577	61048-177-202	R-CARBON;2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R533	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R540	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R570	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R571	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R604	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R605	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R608	70795047	2001-000864	61048-177-563	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R609	70795047	2001-000864	61048-177-563	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R613	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R641	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R642	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R644	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R650	70796369	2003-000259	A1004-0357	R-METAL OXIDE;3.9OHM,5%,2W,AE,TP,6X16MM	
R651	70795052	2001-000010	61048-177-683	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R652	70795024	2001-000568	61048-177-270	R-CARBON;27ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R654	BY230038	2001-000812	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R655	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R656	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R657	70795052	2001-000010	61048-177-683	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R660	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R661	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R666	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R667	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R668	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R669	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R670	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R671	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R672	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R673	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R674	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R675	BY230164	2001-000032	2001-000032	R-CARBON;180ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R676	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R677	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R678	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R679	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R682	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R685	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R687	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R690	70795047	2001-000864	61048-177-563	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R691	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R692	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R693	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R694	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R695	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R696	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R6P01	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P02	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P03	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R6P04	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R6P05	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R6P06	BY230038	2001-000812	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P07	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P08	70795028	2001-000007	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R6P11	BY230090	2001-000005	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,-	
R707	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R708	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R709	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R710	70795039	2001-000780	61048-177-471	R-CARBON;470OHM,5%,1/8W,AA,TP,-	
R711	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R712	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R715	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R727	70795014	2001-000008	61048-177-153	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R728	70795014	2001-000008	61048-177-153	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R731	70795006	2001-000290	61048-177-103	R-CARBON;10KOHM,5%,1/8W,AA,TP,-	
R732	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R734	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R735	70795013	2001-000241	61048-177-152	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R750	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R803	BY230167	2001-000116	2001-000116	R-CARBON;820ohm,5%,1/4W,AA,TP,2.4x6.4mm	
R805	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R806	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R807	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R808	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R810	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R811	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R812	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R813	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R814	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R815	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R816	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R821	70795032	2001-000660	61048-177-330	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R822	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W072	70795004	2001-000281	61048-177-101	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
W229	70795609	2001-000605	61048-177-362	R-CARBON;3.6Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
<b>&lt;MISCELLANEOUS&gt;</b>					
CN1SS1	70796223	3711-000178	A6010-0459	CONNECTOR-HEADER;1WALL,2P,1R,3.96mm,STRA	
CN301	70796387	3708-000391	A6013-0942	CONNECTOR-FPC/FC/PIC;10P,1.25MM,STRAIGHT	
CN3A01	BY634038	3708-001302	3708-001302	CONNECTOR-FPC/FC/PIC;7P,1.25mm,STRAIGHT,	
CN3A02	70796246	3711-002445	B6010-0915	CONNECTOR-HEADER;BOX,2P,2R,1.5MM,STRAIGH	
CN4N01	BY634116	3711-003176	3711-003176	CONNECTOR-HEADER;NOWALL,10P,1R,2.5mm,ANG	
CN601	BY634047	AC39-20817S	AC39-20817S	LEAD CONNECTOR-ASSY;DP,SMH200-02,YBH200-	
CN602	BY634003	3708-001163	3708-001163	CONNECTOR-FPC/FC/PIC;5P,1.25mm,STRAIGHT,	
CN604	BY634026	3711-003749	3711-003749	CONNECTOR-HEADER;BOX,8P,2R,2mm,STRAIGHT,	
CN701	70795274	3711-001198	A6010-0264	CONNECTOR-HEADER;NOWALL,10P,1R,2mm,ANGLE	
CN702	70795274	3711-001198	A6010-0264	CONNECTOR-HEADER;NOWALL,10P,1R,2mm,ANGLE	
DT701	BY634119	AC07-20051C	AC07-20051C	VF-DISPLAY;SVV-07SS27,15SEG,20.5X75.0,SV	
F1SS01	BY634112	3601-001123	3601-001123	FUSE-FERRULE;250V,1.6A,TIME-LAG,CERAMIC,	
JC801	BY634117	3722-001093	3722-001093	JACK-RCA;42P,3.81MM,SN,BLU/BLK,#20-28	
JC802	BY634121	AC37-22002E	AC37-22002E	JACK-PIN;3.5MM,DPAE9634,2P,TR,-	
PT1SS1	BY634120	AC26-00001A	AC26-00001A	TRANS-SWITCHING;-;230V,DEMCO,EE2821,0.5M	
RM701	BY634036	AC59-60060A	AC59-60060A	MODULE-REMOCON;GP1U281R,SHARP,38KHZ,-,-	
SW601	BY632004	AC34-20100A	AC34-20100A	SWITCH-MODE;-,-,X-9,-	
SW602	BY632005	AC34-20100B	AC34-20100B	SWITCH-REC;-,-,X-9,-	
SW701	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW703	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW708	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW711	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW713	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW714	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW715	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW716	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW717	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW718	BY632002	3404-001076	3404-001076	SWITCH-TACT;12V,50mA,16gf+-50gf,6x6mm,SP	
SW801	BY632010	3404-000135	3404-000135	SWITCH-TACT;12V,50mA,160+-50gf,7.4x7.1mm	
TM401	BY630053	AC40-30072H	AC40-30072H	TM-BLOCK;TCMK00601PD08A,PAL-BG/I/DK,HI-F	
VA1SS1	BY634022	1405-001026	1405-001026	VARIATOR;470V,600A,9x7mm,TP	
XT301	BY633009	2801-001397	2801-001397	CRYSTAL-UNIT;4.433619MHZ,HC-49/U-S 15PPM	
XT4N01	BY633011	2801-003171	2801-003171	CRYSTAL-UNIT;18.432MHz,20PPM,28-AAM,4PF,	
XT601	BY633003	2801-003318	2801-003318	CRYSTAL-UNIT;32.768KHz,20ppm,28-AAP,12.5	
XT602	BY633010	2801-003139	2801-003139	CRYSTAL-UNIT;8MHz,50ppm,28-AAA,22pF,80oh	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
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**THE DIFFERENTIAL PART LIST****V-429B ONLY (Compared with V-729B)****-PACKING PARTS-**

A701	BY634194	AC69-50913E	AC69-50913E	PACKING CASE;V-429B,-,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EP5 58,-,-,-,M-685	
UT01	BY634130	AC59-00005C	AC59-00005C	REMOCON-ASSY;-V-629B,-,45KEY,V-429B,V-2	
Y101	BY634153	AC68-00157A	AC68-00157A	MANUAL-USERS;V-429B/229B/219B,MOJO100,-,	

**-INSTRUMENT PARTS-**

1	BY730426	AC98-12106C	AC98-12106C	ASSY-PANEL FRONT;V-429B/TSB,HIPS94HB BLK	
21	BY730320	AC64-52160J	AC64-52160J	DOOR-CASSETTE;V-429B,ABS,94HB,T2.5,-,BLK	
101	BY730312	AC64-30899B	AC64-30899B	CABINET-TOP;V-629G/TSB,PCM MD552,SECC,T0	
TM401B	BY730224	AC61-11061F	AC61-11061F	CONNECTOR BOARD-ASSY;V-429B/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

G001	BY730385	AC96-10481J	AC96-10481J	ASSY-CYLINDER;CX-9,PAL 4HD	
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**-ELECTRICAL PARTS-**

601	BY630082	AC93-10867D	AC93-10867D	ASSY-MAIN;SV-429B/TSB,COBRA PAL I	
602			Not used		

**<INTEGRATED CIRCUITS>**

IC4N01			Not used		
IC501			Not used		

**<TRANSISTORS>**

Q1P103			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q803			Not used		

**<DIODES>**

D4N01			Not used		
D4N02			Not used		
ZD801			Not used		

**<INDUCTORS>**

FL3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		

**<CAPACITORS>**

C1P107			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP7.5X4.5X12.5M	
C3A22	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description , Specification	Remark
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
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C513			Not used		
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C518			Not used		
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C520			Not used		
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C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C832			Not used		
C833			Not used		
C838			Not used		
<b>&lt;RESISTORS&gt;</b>					
R3A27	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A28	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A29	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A31	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A33	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		

# Replacement Parts List

Loc. No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		
<b>V-229B ONLY (Compared with V-729B)</b>					
<b>-PACKING PARTS-</b>					
A701	BY634198	AC69-50913J	AC69-50913J	PACKING CASE;V-229B,-,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EP5 58,-,-,-,M-685	
U701	BY634130	AC59-00005C	AC59-00005C	REMOCON-ASSY;-V-629B,-,45KEY,V-429B,V-2	
Y101	BY634153	AC68-00157A	AC68-00157A	MANUAL-USERS;V-429B/229B/219B,MOJO100,-,	
<b>-INSTRUMENT PARTS-</b>					
1	BY730430	AC98-12106G	AC98-12106G	ASSY-PANEL FRONT;V-229B/TSB,HIPS94HB BLK	
21	BY730324	AC64-52160N	AC64-52160N	DOOR-CASSETTE;V-229B,ABS,94HB,T2.5,-,BLK	
101	BY730312	AC64-30899B	AC64-30899B	CABINET-TOP;V-629G/TSB,PCM MD552,SECC,T0	
TM401B	BY730224	AC61-11061F	AC61-11061F	CONNECTOR BOARD-ASSY;V-429B/TSB,HIPS94,H	
<b>-MECHANICAL PARTS-</b>					
G001	BY730420	AC97-00229A	AC97-00229A	ASSY-CYLINDER;CX9-S2PLB,-,-	
<b>-ELECTRICAL PARTS-</b>					
601	BY630083	AC93-10867E	AC93-10867E	ASSY-MAIN;SV-229B/TSB,COBRA PAL I	
602			Not used		
<b>&lt;INTERGRATED CIRCUITS&gt;</b>					
IC4N01			Not used		
IC501			Not used		
<b>&lt;TRANSISTORS&gt;</b>					
Q1P103			Not used		
Q310			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q803			Not used		
<b>&lt;DIODES&gt;</b>					
D4N01			Not used		
D4N02			Not used		
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3A22	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
C513			Not used		
C514			Not used		
C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C832			Not used		
C833			Not used		
C838			Not used		
<b>&lt;RESISTORS&gt;</b>					
R324	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R343			Not used		
R3A27	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A28	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A29	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A31	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A33	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		

# Replacement Parts List

Loc. No.	TSB Parts No.	New Reference No.	Old Reference No.	Description, Specification	Remark
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		
<b>V-219B ONLY (Compared with V-729B)</b>					
<b>-PACKING PARTS-</b>					
A701	BY634211	AC69-50913Y	AC69-50913Y	PACKING CASE;V-219B,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,M-685	
U701	BY634131	AC59-00005D	AC59-00005D	REMOCON-ASSY;-VT-629W,-,45KEY,V-219B],-	
Y101	BY634153	AC68-00157A	AC68-00157A	MANUAL-USERS;V-429B/229B/219B,MOJO100,-,	
<b>-INSTRUMENT PARTS-</b>					
1	BY730405	AC97-00122C	AC97-00122C	ASSY-PANEL FRONT;V-219B/TSB,HIPS94HB,GRA	
21	BY730436	AC64-52175E	AC64-52175E	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
101	BY730312	AC64-30899B	AC64-30899B	CABINET-TOP;V-629G/TSB,PCM MD552,SECC,T0	
TM401B	BY730224	AC61-11061F	AC61-11061F	CONNECTOR BOARD-ASSY;V-429B/TSB,HIPS94,H	
<b>-MECHANICAL PARTS-</b>					
G001	BY730420	AC97-00229A	AC97-00229A	ASSY-CYLINDER;CX9-S2PLB,-,-	
<b>-ELECTRICAL PARTS-</b>					
601	BY630062	AC92-00030A	AC92-00030A	ASSY-PCB-MAIN;V-219B/TSB,1S,VFD	
602			Not used		
<b>&lt;INTERGRATED CIRCUITS&gt;</b>					
IC4N01			Not used		
IC501			Not used		
<b>&lt;TRANSISTORS&gt;</b>					
Q1P103			Not used		
Q310			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q3D03			Not used		
Q803			Not used		
<b>&lt;DIODES&gt;</b>					
D4N01			Not used		
D4N02			Not used		
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description . Specification	Remark
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3A22	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
C513			Not used		
C514			Not used		
C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C832			Not used		
C833			Not used		
C838			Not used		
<b>&lt;RESISTORS&gt;</b>					
R324	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R343			Not used		
R3A27	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A28	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A29	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A31	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A33	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		



# Replacement Parts List

Loc No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
W229			Not used		

## <MISCELLANEOUS>

CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

## V-209UK ONLY (Compared with V-709B)

### -PACKING PARTS-

A701	BY634201	AC69-50913M	AC69-50913M	PACKING CASE;V-209UK,-,428,-	
UT01	BY634132	AC59-00005E	AC59-00005E	REMOCON-ASSY;-VT-209G,-,45KEY,V-209UK,-	
Y101	BY634154	AC68-00159A	AC68-00159A	MANUAL-USERS;V-209UK,MOJO100,-,ENG,-	

### -INSTRUMENT PARTS-

1	BY730433	AC98-12106K	AC98-12106K	ASSY-PANEL FRONT;V-209UK/TSB,HIPS94HB BL	
21	BY730327	AC64-52160R	AC64-52160R	DOOR-CASSETTE;V-209B,ABS,94HB,T2.5,-,BLK	
TM401B	BY730225	AC61-11061G	AC61-11061G	CONNECTOR BOARD-ASSY;V-209B/TSB,HIPS94,H	

### -MECHANICAL PARTS-

G001	BY730420	AC97-00229A	AC97-00229A	ASSY-CYLINDER;CX9-S2PLB,-,-	
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### -ELECTRICAL PARTS-

601	BY630066	AC92-00048A	AC92-00048A	ASSY-PCB-MAIN;V-209UK/TSB,1S VFD 99T	
602			Not used		

### <INTERGRATED CIRCUITS>

IC4N01			Not used		
IC501			Not used		
IC601	BY631032	AC09-00024A	AC09-00024A	IC-MCU;UPD784927GF-118-3BA,100P,-,N90-11	
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,	

### <TRANSISTORS>

Q1P103			Not used		
Q310			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q803			Not used		
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	

### <DIODES>

D4N01			Not used		
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Lot No.	TSB Parts No.	New Reference No.	Old Reference No.	Description / Specification	Remark
D4N02				Not used	
ZD801				Not used	
<b>&lt;INDUCTORS&gt;</b>					
FL3D01				Not used	
L3D01				Not used	
L402				Not used	
L4N01				Not used	
L4N02				Not used	
L4N03				Not used	
L4N04				Not used	
L502				Not used	
L503				Not used	
L811				Not used	
L812				Not used	
<b>&lt;CAPACITORS&gt;</b>					
C1P107				Not used	
C312				Not used	
C360				Not used	
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3A22	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3D01				Not used	
C3D02				Not used	
C3D03				Not used	
C3D04				Not used	
C3D05				Not used	
C4N01				Not used	
C4N02				Not used	
C4N03				Not used	
C4N04				Not used	
C4N05				Not used	
C4N06				Not used	
C4N07				Not used	
C4N08				Not used	
C4N09				Not used	
C4N10				Not used	
C4N11				Not used	
C4N12				Not used	
C4N13				Not used	
C4N14				Not used	
C4N15				Not used	
C4N16				Not used	
C4N17				Not used	
C4N18				Not used	
C4N19				Not used	
C4N21				Not used	
C4N22				Not used	
C4N23				Not used	
C4N24				Not used	
C501				Not used	
C502				Not used	
C503				Not used	
C504				Not used	
C505				Not used	
C506				Not used	
C507				Not used	
C508				Not used	
C509				Not used	
C510				Not used	
C511				Not used	
C512				Not used	
C513				Not used	
C514				Not used	
C515				Not used	
C516				Not used	
C517				Not used	
C518				Not used	
C519				Not used	
C520				Not used	
C521				Not used	
C522				Not used	
C523				Not used	
C524				Not used	
C525				Not used	
C526				Not used	
C527				Not used	
C530				Not used	

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C531			Not used		
C532			Not used		
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL;.12NF,10%,50V,Y5P,TP	
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
C832			Not used		
C833			Not used		
C838			Not used		
<b>&lt;RESISTORS&gt;</b>					
R324	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R343			Not used		
R3A27	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A28	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A31	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R533			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P05			Not used		
R6P06			Not used		
R6P09	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R810			Not used		
R811			Not used		
R821			Not used		
R822			Not used		
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC801	BY634114	3710-000482	3710-000482	CONNECTOR-SOCKET;21P,-,ANGLE,SN	
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
<b>V-729EG ONLY (Compared with V-729B)</b>					
<b>-PACKING PARTS-</b>					
A701	BY634212	AC69-50913Z	AC69-50913Z	PACKING CASE;V-729EG,-,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,M-685	
UT01	BY634133	AC59-00005F	AC59-00005F	REMOCON-ASSY;-VT-209F,-,45KEY,V-729EG,-	
Y101	BY634155	AC68-00160A	AC68-00160A	MANUAL-USERS;V-729EG,MOJO100,-,ENG,-	
<b>-INSTRUMENT PARTS-</b>					
1	BY730406	AC97-00122D	AC97-00122D	ASSY-PANEL FRONT;V-729EG/TSB,HIPS94HB,87	
21	BY730332	AC64-52175F	AC64-52175F	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
101	BY730314	AC64-30899D	AC64-30899D	CABINET-TOP-ASSY;-PCM(SECC)-,0.525,380	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730220	AC61-11061B	AC61-11061B	CONNECTOR BOARD-ASSY;V-629G/TSB,HIPS94,H	
<b>-MECHANICAL PARTS-</b>					
SAME AS V-729B					
<b>-ELECTRICAL PARTS-</b>					
601	BY630067	AC92-00049A	AC92-00049A	ASSY-PCB-MAIN;V-729EG/TSB,2S VFD-A 99T	
702	BY630078	AC92-00091A	AC92-00091A	ASSY-PCB-SUB;V-729EG/TSB,CBC2	
<b>&lt;INTERGRATED CIRCUITS&gt;</b>					
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	
<b>&lt;TRANSISTORS&gt;</b>					
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q802			Not used		
Q803			Not used		
Q804			Not used		
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
L701	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L702	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7.5	
C6B07	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B08	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C802	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C804	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C806	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7.5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7.5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2uF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C811	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C812	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C813	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11.5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10nF,30%,16V,Y5S,TP	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7.5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C841			Not used		

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R344	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W107	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
<b>&lt;MISCELLANEOUS&gt;</b>					
JK701	BY634045	AC37-22002H	AC37-22002H	JACK-PIN;3.2mm,DPSE-9826,3P,10mm,ARREY	
<b>V-719EG ONLY (Compared with V-709B)</b>					
<b>-PACKING PARTS-</b>					
A701	BY634204	AC69-50913R	AC69-50913R	PACKING CASE;V-719EG,-,428,-	
UT01	BY634134	AC59-00005G	AC59-00005G	REMOCON-ASSY;-VT-209B,-,45KEY,V-719EG,-	
Y101	BY634155	AC68-00160A	AC68-00160A	MANUAL-USERS;V-729EG,MOJO100,-,ENG,-	
<b>-INSTRUMENT PARTS-</b>					
1	BY730407	AC97-00122E	AC97-00122E	ASSY-PANEL FRONT;V-719EG/TSB,HIPS94HB,GR	
21	BY730333	AC64-52175G	AC64-52175G	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
101	BY730314	AC64-30899D	AC64-30899D	CABINET-TOP-ASSY;-PCM(SECC),-0.525,380	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730220	AC61-11061B	AC61-11061B	CONNECTOR BOARD-ASSY;V-629G/TSB,HIPS94,H	
<b>-MECHANICAL PARTS-</b>					
SAME AS V-729B					
<b>-ELECTRICAL PARTS-</b>					
601	BY630076	AC92-00058A	AC92-00058A	ASSY-PCB-MAIN;V-719EG/TSB,2S VFD 99T	
701	BY630081	AC93-10866X	AC93-10866X	ASSY-F/TIMER;COBRA-PAL,VFD	
702			Not used		
<b>&lt;INTERGATED CIRCUITS&gt;</b>					
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	
<b>&lt;TRANSISTORS&gt;</b>					
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mV,4.7K-4.7K,T	
Q802			Not used		
Q803			Not used		
Q804			Not used		
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C802	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C804	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C806	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C811	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C812	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C813	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10nF,30%,16V,Y5S,TP	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C841			Not used		

**<RESISTORS>**

R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm

**<MISCELLANEOUS>**

SAME AS V-709B

**V-429EG ONLY (Compared with V-729B)****-PACKING PARTS-**

A701	BY634195	AC69-50913F	AC69-50913F	PACKING CASE;V-429EG,-,-,428,-
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,-,M-685
UT01	BY634135	AC59-00005H	AC59-00005H	REMOCON-ASSY;-VT-209W,-,-,45KEY,V-429EG,-
Y101	BY634156	AC68-00161A	AC68-00161A	MANUAL-USERS;V-429EG/229EG,MOJO100,-,-,G

**-INSTRUMENT PARTS-**

1	BY730427	AC98-12106D	AC98-12106D	ASSY-PANEL FRONT;V-429EG/TSB,HIPS94HB BL
21	BY730321	AC64-52160K	AC64-52160K	DOOR-CASSETTE;V-429EG,ABS,94HB,T2.5,-,BL
101	BY730314	AC64-30899D	AC64-30899D	CABINET-TOP-ASSY;-PCM(SECC),-0.525,380
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K
TM401B	BY730223	AC61-11061E	AC61-11061E	CONNECTOR BOARD-ASSY;V-429G/TSB,HIPS94,H

**-MECHANICAL PARTS-**

G001	BY730385	AC96-10481J	AC96-10481J	ASSY-CYLINDER;CX-9,PAL 4HD
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**-ELECTRICAL PARTS-**

601	BY630068	AC92-00050A	AC92-00050A	ASSY-PCB-MAIN;V-429EG/TSB,2S VFD-A 99T
602			Not used	

**<INTERGRATED CIRCUITS>**

IC4N01			Not used	
IC501			Not used	
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST

**<TRANSISTORS>**

Q1P103			Not used	
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
Q3D01			Not used	
Q3D02			Not used	
Q3D03			Not used	
Q802			Not used	
Q803			Not used	
Q805			Not used	

**<DIODES>**

D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
D4N01			Not used		
D4N02			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
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C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C832			Not used		
C833			Not used		
C838			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A27			Not used		
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
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R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;2000HM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	



## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R824 W229	70795026	2001-000563	61048-177-273 Not used	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

**<MISCELLANEOUS>**

CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,
CN4N01			Not used	
JC802			Not used	
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C
XT4N01			Not used	

### V-229EG ONLY (Compared with V-709B)

**-PACKING PARTS-**

A701	BY634199	AC69-50913K	AC69-50913K	PACKING CASE;V-229EG,-,-,428,-
UT01	BY634136	AC59-00005J	AC59-00005J	REMOCON-ASSY;-VT-429B,-,45KEY,V-229EG,-
Y101	BY634156	AC68-00161A	AC68-00161A	MANUAL-USERS;V-429EG/229EG,MOJO100,-,-,G

**-INSTRUMENT PARTS-**

1	BY730431	AC98-12106H	AC98-12106H	ASSY-PANEL FRONT;V-229EG/TSB,HIPS94HB BL
21	BY730325	AC64-52160P	AC64-52160P	DOOR-CASSETTE;V-229EG,ABS,94HB,T2 5,-,BL
101	BY730314	AC64-30899D	AC64-30899D	CABINET-TOP-ASSY;-PCM(SECC),-.0 525,380
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K
TM401B	BY730223	AC61-11061E	AC61-11061E	CONNECTOR BOARD-ASSY;V-429G/TSB,HIPS94.H

**-MECHANICAL PARTS-**

G001 BY730420 AC97-00229A AC97-00229A ASSY-CYLINDER;CX9-S2PLB...

**-ELECTRICAL PARTS-**

601	BY630069	AC92-00051A	AC92-00051A	ASSY-PCB-MAIN;V-229EG/TSB,2S VFD-A 99T
602			Not used	
702			Not used	

## **<INTEGRATED CIRCUITS>**

IC4N01			Not used	
IC501			Not used	
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP36PIN,375MIL PLAST

## <TRANSISTORS>

Q1P103			Not used	
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
Q310			Not used	
Q3D01			Not used	
Q3D02			Not used	
Q3D03			Not used	
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-
Q802			Not used	
Q803			Not used	
Q805			Not used	
Q6B01			Not used	
Q6B02			Not used	
Q6B03			Not used	
Q6B04			Not used	

## <DIODES>

D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
D4N01			Not used	
D4N02			Not used	
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D
ZD801			Not used	

## <INDUCTORS>

FL3D01			Not used	
L3D01			Not used	
L402			Not used	
L4N01			Not used	
L4N02			Not used	
L4N03			Not used	
L4N04			Not used	
L502			Not used	
L503			Not used	
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-----
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-----
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM

Lgo.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description, Specification	Remark
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
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C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V Y5V	

# Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description, Specification	Remark
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R324	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R343			Not used		
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
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R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

## V-219EG ONLY (Compared with V-709B)

### -PACKING PARTS-

A701	BY634205	AC69-50913S	AC69-50913S	PACKING CASE;V-219EG,-,-,428,-
UT01	BY634137	AC59-00005K	AC59-00005K	REMOCON-ASSY;-VT-429G,-,-,45KEY,V-219EG,-
Y101	BY634156	AC68-00161A	AC68-00161A	MANUAL-USERS;V-429EG/229EG,MOJO100,-,-,G

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
<b>-INSTRUMENT PARTS-</b>					
1	BY730408	AC97-00122F	AC97-00122F	ASSY-PANEL FRONT;V-219EG/TSB,HIPS94HB,GR	
21	BY730334	AC64-52175H	AC64-52175H	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
101	BY730314	AC64-30899D	AC64-30899D	CABINET-TOP-ASSY;-PCM(SECC),-,0.525,380	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730223	AC61-11061E	AC61-11061E	CONNECTOR BOARD-ASSY;V-429G/TSB,HIPS94,H	
<b>-MECHANICAL PARTS-</b>					
G001	BY730420	AC97-00229A	AC97-00229A	ASSY-CYLINDER;CX9-S2PLB,-,-	
<b>-ELECTRICAL PARTS-</b>					
601	BY630070	AC92-00052A	AC92-00052A	ASSY-PCB-MAIN;V-219EG/TSB,2S VFD 99T	
602			Not used		
702			Not used		
<b>&lt;INTERGATED CIRCUITS&gt;</b>					
IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	
<b>&lt;TRANSISTORS&gt;</b>					
Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q310			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q802			Not used		
Q803			Not used		
Q805			Not used		
Q6B01			Not used		
Q6B02			Not used		
Q6B03			Not used		
Q6B04			Not used		
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		

## Replacement Parts List

Loc.No	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
C513			Not used		
C514			Not used		
C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R324	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R343			Not used		
R3A27			Not used		
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description , Specification	Remark
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;2000HM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

### V-209EG ONLY (Compared with V-709B)

#### -PACKING PARTS-

A701	BY634202	AC69-50913N	AC69-50913N	PACKING CASE;V-209EG,-,-,428,-
UT01	BY634138	AC59-00005L	AC59-00005L	REMOCON-ASSY;-VT-429F,-,45KEY,VT-209EG,
Y101	BY634157	AC68-00162A	AC68-00162A	MANUAL-USERS;V-719EG,MOJO100,-,-,GER,-

#### -INSTRUMENT PARTS-

1	BY730434	AC98-12106L	AC98-12106L	ASSY-PANEL FRONT;V-209EG/TSB,HIPS94HB BL
21	BY730328	AC64-52160S	AC64-52160S	DOOR-CASSETTE;V-209EG,ABS,94HB,T2.5,-,BL
101	BY730314	AC64-30899D	AC64-30899D	CABINET-TOP-ASSY;-PCM(SECC),-,0.525,380
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K
TM401B	BY730223	AC61-11061E	AC61-11061E	CONNECTOR BOARD-ASSY;V-429G/TSB,HIPS94,H

#### -MECHANICAL PARTS-

G001	BY730420	AC97-00229A	AC97-00229A	ASSY-CYLINDER;CX9-S2PLB,-,-
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#### -ELECTRICAL PARTS-

601	BY630077	AC92-00059A	AC92-00059A	ASSY-PCB-MAIN;V-209EG/TSB,2S VFD 99T
602			Not used	
702			Not used	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
<b>&lt;INTERGRATED CIRCUITS&gt;</b>					
IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	
<b>&lt;TRANSISTORS&gt;</b>					
Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q310			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
Q802			Not used		
Q803			Not used		
Q805			Not used		
Q6B01			Not used		
Q6B02			Not used		
Q6B03			Not used		
Q6B04			Not used		
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
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C514			Not used		
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C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R324	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R343			Not used		
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		



## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;2000HM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W229			Not used		

## &lt;MISCELLANEOUS&gt;

CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

## V-729F ONLY (Compared with V-729B)

## -PACKING PARTS-

A701	BY634206	AC69-50913T	AC69-50913T	PACKING CASE;V-729F,-,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,M-685	
UT01	BY634139	AC59-00005M	AC59-00005M	REMOCON-ASSY;-VT-429W,-,45KEY,V-729F,-	
Y101	BY634158	AC68-00165A	AC68-00165A	MANUAL-USERS;V-729F,MOJO100,-,FRA,-	

## -INSTRUMENT PARTS-

1	BY730409	AC97-00122G	AC97-00122G	ASSY-PANEL FRONT;V-729F/TSB,HIPS94HB,SIL	
21	BY730335	AC64-52175J	AC64-52175J	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730219	AC61-11061A	AC61-11061A	CONNECTOR BOARD-ASSY;SV-C140F,HIPS94,HB,	

## -MECHANICAL PARTS-

G001	BY730400	AC96-10483T	AC96-10483T	ASSY-CYLINDER;CX-9,SECAM 6HD	
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## -ELECTRICAL PARTS-

601	BY630071	AC92-00053A	AC92-00053A	ASSY-PCB-MAIN;V-729F/TSB,2S VFD-A 99T	
702	BY630078	AC92-00091A	AC92-00091A	ASSY-PCB-SUB;V-729EG/TSB,CBC2	

## &lt;INTERGRATED CIRCUITS&gt;

IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC3S01	BY631062	1204-001437	1204-001437	IC-CHROMA;LA7359,DIP,28P,400MIL,PLASTIC,	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	

## &lt;TRANSISTORS&gt;

Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3S01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q3S02	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q3S03	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3S04	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q3S05	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q802			Not used		
Q803			Not used		
Q804			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D3S02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
L3S01	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3S02	70795863	2702-000179	62427-812-689	INDUCTOR-RADIAL;6.8uH,5%,6x6.4mm	
L3S03	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L3S04	70795843	2701-000195	62427-010-293	INDUCTOR-AXIAL;47uH,5%,2.4X3.4MM	
L701	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L702	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7.5	
C3S01	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;18NF,10%,50V,Y5P,TP	
C3S02	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C3S03	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S04	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S05	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S06	70795363	2202-000791	61407-117-154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C3S07	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11.5	
C3S08	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S09	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S11	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S13	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7.5	
C3S14	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C3S15	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7.5	
C3S17	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S19	70795070	2201-000376	61407-101-440	C-CERAMIC,DISC;220pF,5%,50V,SL,TP,4x4.5	
C3S20	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C3S21	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7.5	
C3S22	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S23	BY130259	2201-000854	2201-000854	C-CERAMIC,DISC;51pF,5%,50V,CH,TP,6.5x3.5	
C3S25	70693215	2202-000787	61407-117-100	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C3S27	70693237	2202-000825	2202-000825	C-CERAMIC,MLC-AXIAL;680pF,10%,50V,Y5P,TP	
C608	BY130131	2401-002259	2401-002259	C-AL;0.1F,+80-20%,5.5V,-,TP,12.5x11	
C6B07	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B08	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C802	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C804	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C806	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7.5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7.5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C811	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C812	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C813	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11.5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11.5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7.5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R303	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R344	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S01	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

# Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
R3S02	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S03	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S04	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S05	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S11	70795045	2001-000837	61048-177-513	R-CARBON;51Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S12	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R3S13	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S14	70795051	2001-000890	61048-177-682	R-CARBON;6.8KOHM,5%,1/8W,AA,TP,-	
R3S15	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S16	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R3S17	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S20	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S21	70795034	2001-000674	61048-177-361	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S22	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3S23	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S24	70795015	2001-000356	61048-177-154	R-CARBON;150Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S27	70795318	2001-000319	61048-177-124	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R602	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W107	70795004	2001-000281	61048-177-101	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
<b>&lt;MISCELLANEOUS&gt;</b>					
JK701	BY634045	AC37-22002H	AC37-22002H	JACK-PIN;3.2mm,DPSE-9826,3P,10mm,ARREY	
TM401	BY630052	AC40-30072F	AC40-30072F	TM-BLOCK;TCMM0601PD08A,SECAM-L/G/I/K,181	

## V-609F ONLY (Compared with V-709B)

### -PACKING PARTS-

A701	BY634193	AC69-50913D	AC69-50913D	PACKING CASE;V-609F,-,428,-
UT01	BY634140	AC59-00005N	AC59-00005N	REMOCON-ASSY;-VT-609F,-,45KEY,V-609F,-
Y101	BY634160	AC68-00167A	AC68-00167A	MANUAL-USERS;V-609F,MOJO100,-,FRA,-

### -INSTRUMENT PARTS-

1	BY730425	AC98-12106B	AC98-12106B	ASSY-PANEL FRONT;V-609F/TSB,HIPS94HB BLK
21	BY730319	AC64-52160H	AC64-52160H	DOOR-CASSETTE;V-629F,ABS,94HB,T2.5,-,BLK
101	BY730313	AC64-30899C	AC64-30899C	CABINET-TOP-ASSY;-PCM(SECC),-0.525,380
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K
TM401B	BY730219	AC61-11061A	AC61-11061A	CONNECTOR BOARD-ASSY;SV-C140F,HIPS94,HB,

### -MECHANICAL PARTS-

G001	BY730400	AC96-10483T	AC96-10483T	ASSY-CYLINDER;CX-9,SECAM 6HD
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### -ELECTRICAL PARTS-

601	BY630072	AC92-00054A	AC92-00054A	ASSY-PCB-MAIN;V-609F/TSB,2S VFD 99T
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### <INTERGRATED CIRCUITS>

IC3S01	BY631062	1204-001437	1204-001437	IC-CHROMA;LA7359,DIP,28P,400MIL,PLASTIC,
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST

### <TRANSISTORS>

Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
Q3S01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T
Q3S02	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q3S03	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
Q3S04	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q3S05	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
Q802			Not used	
Q803			Not used	
Q804			Not used	

### <DIODES>

D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description, Specification	Remark
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D3S02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
L3S01	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3S02	70795863	2702-000179	62427-812-689	INDUCTOR-RADIAL;6.8uH,5%,6x6.4mm	
L3S03	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L3S04	70795843	2701-000195	62427-010-293	INDUCTOR-AXIAL;47uH,5%,2.4X3.4MM	
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3S01	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;18NF,10%,50V,Y5P,TP	
C3S02	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C3S03	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S04	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S05	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S06	70795363	2202-000791	61407-117-154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C3S07	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3S08	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S09	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S11	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S13	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C3S14	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C3S15	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C3S17	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S19	70795070	2201-000376	61407-101-440	C-CERAMIC,DISC;220pF,5%,50V,SL,TP,4x4,5	
C3S20	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C3S21	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3S22	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C3S23	BY130259	2201-000854	2201-000854	C-CERAMIC,DISC;51pF,5%,50V,CH,TP,6.5x3,5	
C3S25	70693215	2202-000787	61407-117-100	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C3S27	70693237	2202-000825	2202-000825	C-CERAMIC,MLC-AXIAL;680pF,10%,50V,Y5P,TP	
C608	BY130131	2401-002259	2401-002259	C-AL;0.1F,+80-20%,5.5V,-,TP,12.5x11	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C802	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C804	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C806	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C811	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C812	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C813	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C841			Not used		
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL;12NF,10%,50V,Y5P,TP	
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R303	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R3S01	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S02	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	

Loc.No	TSB Parts No.	New Reference No.	Old Reference No.	Description, Specification	Remark
R3S03	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S04	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S05	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S11	70795045	2001-000837	61048-177-513	R-CARBON;51Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S12	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R3S13	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S14	70795051	2001-000890	61048-177-682	R-CARBON;6.8KOHM,5%,1/8W,AA,TP,-	
R3S15	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S16	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R3S17	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S20	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S21	70795034	2001-000674	61048-177-361	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S22	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3S23	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S24	70795015	2001-000356	61048-177-154	R-CARBON;150Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S27	70795318	2001-000319	61048-177-124	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R602	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P06			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P09	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

**<MISCELLANEOUS>**

TM401	BY630052	AC40-30072F	AC40-30072F	TM-BLOCK;TCMM0601PD08A,SECAM-L/G/I/K,181	
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**V-429F ONLY (Compared with V-729B)****-PACKING PARTS-**

A701	BY634196	AC69-50913G	AC69-50913G	PACKING CASE;V-429F,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,M-685	
UT01	BY634141	AC59-00005P	AC59-00005P	REMOCON-ASSY;-VT-429F,-,45KEY,V-429F,41	
Y101	BY634159	AC68-00166A	AC68-00166A	MANUAL-USERS;V-429F/229F,MOJO100,-, ,FRA	

**-INSTRUMENT PARTS-**

1	BY730428	AC98-12106E	AC98-12106E	ASSY-PANEL FRONT;V-429F/TSB,HIPS94HB BLK	
21	BY730322	AC64-52160L	AC64-52160L	DOOR-CASSETTE;V-429F,ABS,94HB,T2.5,-,BLK	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730222	AC61-11061D	AC61-11061D	CONNECTOR BOARD-ASSY;V-629B/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

G001	BY730399	AC96-10483R	AC96-10483R	ASSY-CYLINDER;CX-9,SECAM 4HD	
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**-ELECTRICAL PARTS-**

601	BY630084	AC93-10867K	AC93-10867K	ASSY-MAIN;SV-429F/TSB,COBRA PAL B/G,D/K,	
602			Not used		
701	BY630031	AC92-00165A	AC92-00165A	ASSY-OPT PCB-MAIN;VFD-AVLINK(MVT),TSB PA	
702	BY630079	AC92-00101A	AC92-00101A	ASSY-PCB-SUB;V-429F/TSB,CBC3	

**<INTERGRATED CIRCUITS>**

IC3S01	BY631062	1204-001437	1204-001437	IC-CHROMA;LA7359,DIP,28P,400MIL,PLASTIC,	
IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	

**<TRANSISTORS>**

Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,T0-92,T	
Q3S02	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q3S03	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	

Loc. No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
Q3S04	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q3S05	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q6B01			Not used		
Q6B02			Not used		
Q6B03			Not used		
Q6B04			Not used		
Q802			Not used		
Q803			Not used		
Q804			Not used		
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D3S02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
LD6B01			Not used		
LD701			Not used		
LD702			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L3S01	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3S02	70795863	2702-000179	62427-812-689	INDUCTOR-RADIAL;6.8uH,5%,6x6.4mm	
L3S03	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L3S04	70795843	2701-000195	62427-010-293	INDUCTOR-AXIAL;47uH,5%,2.4X3.4MM	
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L6B01			Not used		
L701	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C3S01	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;18NF,10%,50V,Y5P,TP	
C3S02	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C3S03	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S04	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S05	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S06	70795363	2202-000791	61407-117-154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C3S07	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3S08	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S09	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S11	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S13	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C3S14	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C3S15	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C3S17	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S19	70795070	2201-000376	61407-101-440	C-CERAMIC,DISC;220pF,5%,50V,SL,TP,4x4,5	
C3S20	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C3S21	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3S22	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S23	BY130259	2201-000854	2201-000854	C-CERAMIC,DISC;51pF,5%,50V,CH,TP,6.5x3,5	
C3S25	70693215	2202-000787	61407-117-100	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C3S27	70693237	2202-000825	2202-000825	C-CERAMIC,MLC-AXIAL;680pF,10%,50V,Y5P,TP	
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
C513			Not used		
C514			Not used		
C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C608	BY130131	2401-002259	2401-002259	C-AL;0.1F,+80-20%,5.5V,-,TP,12.5x11	
C6B01			Not used		
C6B02			Not used		
C6B03			Not used		
C6B04			Not used		
C6B07	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B08	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B09			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10nF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description , Specification	Remark
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R303	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R344	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A29	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A33	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R3S01	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S02	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S03	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S04	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S05	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S11	70795045	2001-000837	61048-177-513	R-CARBON;51Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S12	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R3S13	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S14	70795051	2001-000890	61048-177-682	R-CARBON;6.8KOHM,5%,1/8W,AA,TP,-	
R3S15	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S16	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R3S17	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S20	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S21	70795034	2001-000674	61048-177-361	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S22	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3S23	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S24	70795015	2001-000356	61048-177-154	R-CARBON;150Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S27	70795318	2001-000319	61048-177-124	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
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R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R602	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6B01			Not used		
R6B02			Not used		
R6B03			Not used		
R6B10			Not used		
R6B11			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;2000HM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R732			Not used		
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	



Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W107	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JK701	BY634122	AC37-22002S	AC37-22002S	JACK;3.2mm,DPSM-9827,2P,10mm,ARREY	
JC802			Not used		
TM401	BY630052	AC40-30072F	AC40-30072F	TM-BLOCK;TCMM0601PD08A,SECAM-L/G/I/K,181	
XT4N01			Not used		

**V-419F ONLY (Compared with V-709B)****-PACKING PARTS-**

A701	BY634208	AC69-50913V	AC69-50913V	PACKING CASE;V-419F,-,428,-	
UT01	BY634141	AC59-00005P	AC59-00005P	REMOCON-ASSY;-VT-429F,-,45KEY,V-429F,41	
Y101	BY634161	AC68-00168A	AC68-00168A	MANUAL-USERS;V-409F/219F,MOJO100,-, ,FRA	

**-INSTRUMENT PARTS-**

1	BY730411	AC97-00122J	AC97-00122J	ASSY-PANEL FRONT;V-419F/TSB,HIPS94HB,SIL	
21	BY730337	AC64-52175L	AC64-52175L	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
101	BY730313	AC64-30899C	AC64-30899C	CABINET-TOP-ASSY;-PCM(SECC)-,0.525,380	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730222	AC61-11061D	AC61-11061D	CONNECTOR BOARD-ASSY;V-629B/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

G001	BY730399	AC96-10483R	AC96-10483R	ASSY-CYLINDER;CX-9,SECAM 4HD	
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**-ELECTRICAL PARTS-**

601	BY630073	AC92-00055A	AC92-00055A	ASSY-PCB-MAIN;V-409F/TSB,2S VFD 99T	
602			Not used		

**<INTEGRATED CIRCUITS>**

IC3S01	BY631062	1204-001437	1204-001437	IC-CHROMA;LA7359,DIP,28P,400MIL,PLASTIC,	
IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	

**<TRANSISTORS>**

Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,T0-92,T	
Q3S02	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q3S03	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3S04	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q3S05	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q802			Not used		
Q803			Not used		
Q804			Not used		

**<DIODES>**

D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D3S02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		

**<INDUCTORS>**

FL3D01			Not used		
L3D01			Not used		
L3S01	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3S02	70795863	2702-000179	62427-812-689	INDUCTOR-RADIAL;6.8uH,5%,6x6.4mm	
L3S03	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L3S04	70795843	2701-000195	62427-010-293	INDUCTOR-AXIAL;47uH,5%,2.4X3.4MM	
L402			Not used		
L4N01			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L6B01			Not used		
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C3S01	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;18NF,10%,50V,Y5P,TP	
C3S02	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C3S03	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S04	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S05	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S06	70795363	2202-000791	61407-117-154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C3S07	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3S08	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S09	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S11	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S13	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C3S14	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C3S15	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C3S17	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S19	70795070	2201-000376	61407-101-440	C-CERAMIC,DISC;220pF,5%,50V,SL,TP,4x4,5	
C3S20	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C3S21	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3S22	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S23	BY130259	2201-000854	2201-000854	C-CERAMIC,DISC;51pF,5%,50V,CH,TP,6.5x3,5	
C3S25	70693215	2202-000787	61407-117-100	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C3S27	70693237	2202-000825	2202-000825	C-CERAMIC,MLC-AXIAL;680pF,10%,50V,Y5P,TP	
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
C513			Not used		

# Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
C514			Not used		
C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C608	BY130131	2401-002259	2401-002259	C-AL;0.1F,+80-20%,5.5V,-,TP,12.5x11	
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL;12NF,10%,50V,Y5P,TP	
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;4.7uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R303	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R3S01	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S02	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S03	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S04	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S05	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S11	70795045	2001-000837	61048-177-513	R-CARBON;51Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S12	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R3S13	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S14	70795051	2001-000890	61048-177-682	R-CARBON;6.8KOHM,5%,1/8W,AA,TP,-	
R3S15	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S16	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R3S17	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S20	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S21	70795034	2001-000674	61048-177-361	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S22	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3S23	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S24	70795015	2001-000356	61048-177-154	R-CARBON;150Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S27	70795318	2001-000319	61048-177-124	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R602	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P06			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P09	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630052	AC40-30072F	AC40-30072F	TM-BLOCK;TCMM0601PD08A,SECAM-L/G/I/K,181	
XT4N01			Not used		

**V-229F ONLY (Compared with V-729B)****-PACKING PARTS-**

A701	BY634200	AC69-50913L	AC69-50913L	PACKING CASE;V-229F,-,-,428,-	
A702	BY730125	AC69-20362A	AC69-20362A	CUSHION-F/B;M-685,EPS 58,-,-,-,M-685	
UT01	BY634142	AC59-00005Q	AC59-00005Q	REMOCON-ASSY;-VT-219F,-,45KEY,V-219F,-	
Y101	BY634159	AC68-00166A	AC68-00166A	MANUAL-USERS;V-429F/229F,MOJO100,-,FRA	

**-INSTRUMENT PARTS-**

1	BY730432	AC98-12106J	AC98-12106J	ASSY-PANEL FRONT;V-229F/TSB,HIPS94HB BLK	
21	BY730326	AC64-52160Q	AC64-52160Q	DOOR-CASSETTE;V-229F,ABS,94HB,T2.5,-,BLK	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730222	AC61-11061D	AC61-11061D	CONNECTOR BOARD-ASSY;V-629B/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

G001	BY730384	AC96-10481G	AC96-10481G	ASSY-CYLINDER;CX-9,PAL 2HD	
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**-ELECTRICAL PARTS-**

601	BY630085	AC93-10867L	AC93-10867L	ASSY-MAIN;SV-229F/TSB,COBRA PAL B/G,D/K,	
602			Not used		
701	BY630031	AC92-00165A	AC92-00165A	ASSY-OPT PCB-MAIN;VFD-AVLINK(MVT),TSB PA	
702	BY630079	AC92-00101A	AC92-00101A	ASSY-PCB-SUB;V-429F/TSB,CBC3	

**<INTERGATED CIRCUITS>**

IC3S01	BY631062	1204-001437	1204-001437	IC-CHROMA;LA7359,DIP,28P,400MIL,PLASTIC,	
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## Replacement Parts List

Loc.No	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	
<b>&lt;TRANSISTORS&gt;</b>					
Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q310			Not used		
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,T0-92,T	
Q3S02	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q3S03	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3S04	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q3S05	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,T0-92,T	
Q6B01			Not used		
Q6B02			Not used		
Q6B03			Not used		
Q6B04			Not used		
Q802			Not used		
Q803			Not used		
Q804			Not used		
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D3S02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
LD6B01			Not used		
LD701			Not used		
LD702			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L3S01	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3S02	70795863	2702-000179	62427-812-689	INDUCTOR-RADIAL;6.8uH,5%,6x6.4mm	
L3S03	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L3S04	70795843	2701-000195	62427-010-293	INDUCTOR-AXIAL;47uH,5%,2.4X3.4MM	
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L6B01			Not used		
L701	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C3S01	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;18NF,10%,50V,Y5P,TP	
C3S02	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C3S03	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S04	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S05	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S06	70795363	2202-000791	61407-117-154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C3S07	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3S08	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C3S09	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S11	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S13	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C3S14	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C3S15	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C3S17	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S19	70795070	2201-000376	61407-101-440	C-CERAMIC,DISC;220pF,5%,50V,SL,TP,4x4,5	
C3S20	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C3S21	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3S22	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S23	BY130259	2201-000854	2201-000854	C-CERAMIC,DISC;51pF,5%,50V,CH,TP,6.5x3,5	
C3S25	70693215	2202-000787	61407-117-100	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C3S27	70693237	2202-000825	2202-000825	C-CERAMIC,MLC-AXIAL;680pF,10%,50V,Y5P,TP	
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
C512			Not used		
C513			Not used		
C514			Not used		
C515			Not used		
C516			Not used		
C517			Not used		
C518			Not used		
C519			Not used		
C520			Not used		
C521			Not used		
C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C608	BY130131	2401-002259	2401-002259	C-AL;0.1F,+80-20%,5.5V,-,TP,12.5x11	
C6B01			Not used		
C6B02			Not used		
C6B03			Not used		
C6B04			Not used		
C6B07	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B08	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C6B09			Not used		
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R303	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R343			Not used		
R344	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A29	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A33	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R3S01	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S02	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S03	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S04	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S05	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S11	70795045	2001-000837	61048-177-513	R-CARBON;51Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S12	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R3S13	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S14	70795051	2001-000890	61048-177-682	R-CARBON;6.8KOHM,5%,1/8W,AA,TP,-	
R3S15	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S16	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R3S17	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S20	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S21	70795034	2001-000674	61048-177-361	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S22	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3S23	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S24	70795015	2001-000356	61048-177-154	R-CARBON;150Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3S27	70795318	2001-000319	61048-177-124	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R4N01			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R602	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6B01			Not used		
R6B02			Not used		
R6B03			Not used		
R6B10			Not used		
R6B11			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;2000HM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R732			Not used		
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W107	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
W229			Not used		

**<MISCELLANEOUS>**

CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JK701	BY634122	AC37-22002S	AC37-22002S	JACK;3.2mm,DPSM-9827,2P,10mm,ARREY	
JC802			Not used		
TM401	BY630052	AC40-30072F	AC40-30072F	TM-BLOCK;TCMM0601PD08A,SECAM-L/G/I/K,181	
XT4N01			Not used		

**V-219F ONLY (Compared with V-709B)****-PACKING PARTS-**

A701	BY634207	AC69-50913U	AC69-50913U	PACKING CASE;V-219F,-,428,-	
UT01	BY634142	AC59-00005Q	AC59-00005Q	REMOCON-ASSY;-VT-219F,-,45KEY,V-219F,-	
Y101	BY634161	AC68-00168A	AC68-00168A	MANUAL-USERS;V-409F/219F,MOJO100,-,FRA	

**-INSTRUMENT PARTS-**

1	BY730410	AC97-00122H	AC97-00122H	ASSY-PANEL FRONT;V-219F/TSB,HIPS94HB,SIL	
21	BY730336	AC64-52175K	AC64-52175K	DOOR-CASSETTE;-ABS94HB,-,T2.5,-,BLK,-,V	
101	BY730313	AC64-30899C	AC64-30899C	CABINET-TOP-ASSY;-PCM(SECC)-,0.525,380	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730222	AC61-11061D	AC61-11061D	CONNECTOR BOARD-ASSY;V-629B/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

G001	BY730384	AC96-10481G	AC96-10481G	ASSY-CYLINDER;CX-9,PAL 2HD	
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**-ELECTRICAL PARTS-**

601	BY630074	AC92-00056A	AC92-00056A	ASSY-PCB-MAIN;V-219F/TSB,2S VFD 99T	
602			Not used		

**<INTEGRATED CIRCUITS>**

IC3S01	BY631062	1204-001437	1204-001437	IC-CHROMA;LA7359,DIP,28P,400MIL,PLASTIC,	
IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	

**<TRANSISTORS>**

Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,TO-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,TO-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q3S01	70795134	0501-000303	A4050-0007	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q3S02	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q3S03	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3S04	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q3S05	70795136	0501-000398	A4050-0026	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q802			Not used		
Q803			Not used		
Q804			Not used		



## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
<b>&lt;DIODES&gt;</b>					
D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D3S02	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		
<b>&lt;INDUCTORS&gt;</b>					
FL3D01			Not used		
L3D01			Not used		
L3S01	70796003	2702-000106	62427-813-101	INDUCTOR-RADIAL;100uH,5%,6.2x7.4mm	
L3S02	70795863	2702-000179	62427-812-689	INDUCTOR-RADIAL;6.8uH,5%,6x6.4mm	
L3S03	BY330052	2701-000165	2701-000165	INDUCTOR-AXIAL;27uH,5%,2.4x3.4mm	
L3S04	70795843	2701-000195	62427-010-293	INDUCTOR-AXIAL;47uH,5%,2.4X3.4MM	
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L6B01			Not used		
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33uH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C3S01	70697011	2202-000164	61407-117-184	C-CERAMIC,MLC-AXIAL;18NF,10%,50V,Y5P,TP	
C3S02	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C3S03	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S04	70796389	2301-000381	B1102-0277	C-FILM,PEF;10nF,5%,50V,TP,6.5x5.5x3mm,5m	
C3S05	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S06	70795363	2202-000791	61407-117-154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C3S07	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C3S08	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C3S09	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S11	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S13	BY130278	2401-001775	2401-001775	C-AL;470nF,20%,50V,GP,TP,4x7,5	
C3S14	BY130262	2202-000173	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C3S15	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C3S17	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S19	70795070	2201-000376	61407-101-440	C-CERAMIC,DISC;220pF,5%,50V,SL,TP,4x4,5	
C3S20	BY130082	2301-000224	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C3S21	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C3S22	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C3S23	BY130259	2201-000854	2201-000854	C-CERAMIC,DISC;51pF,5%,50V,CH,TP,6.5x3,5	
C3S25	70693215	2202-000787	61407-117-100	C-CERAMIC,MLC-AXIAL;10PF,5%,50V,Y5P,TP,3	
C3S27	70693237	2202-000825	2202-000825	C-CERAMIC,MLC-AXIAL;680pF,10%,50V,Y5P,TP	
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
C502			Not used		
C503			Not used		
C504			Not used		
C505			Not used		
C506			Not used		
C507			Not used		
C508			Not used		
C509			Not used		
C510			Not used		
C511			Not used		
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C522			Not used		
C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C608	BY130131	2401-002259	2401-002259	C-AL;0.1F,+80-20%,5.5V,-,TP,12.5x11	
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL;12NF,10%,50V,Y5P,TP	
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R303	70795357	2001-000258	61048-177-182	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-	
R343			Not used		
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R3S01	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S02	70795058	2001-000977	61048-177-822	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S03	70795663	2001-001015	61048-177-912	R-CARBON;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S04	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
R3S05	70795041	2001-000786	61048-177-473	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S11	70795045	2001-000837	61048-177-513	R-CARBON;51Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S12	70795040	2001-000734	61048-177-472	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-	
R3S13	70795029	2001-000633	61048-177-303	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S14	70795051	2001-000890	61048-177-682	R-CARBON;6.8KOHM,5%,1/8W,AA,TP,-	
R3S15	70795055	2001-000947	61048-177-752	R-CARBON;7.5Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S16	70699144	2001-000472	61048-177-272	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,-	
R3S17	70795021	2001-000522	61048-177-223	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S20	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S21	70795034	2001-000674	61048-177-361	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S22	70795005	2001-000429	61048-177-102	R-CARBON;1KOHM,5%,1/8W,AA,TP,-	
R3S23	70795319	2001-000539	61048-177-243	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S24	70795015	2001-000356	61048-177-154	R-CARBON;150Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3S27	70795318	2001-000319	61048-177-124	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
R501			Not used		
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
R508			Not used		
R509			Not used		
R510			Not used		
R511			Not used		
R512			Not used		
R514			Not used		
R516			Not used		
R517			Not used		
R518			Not used		
R519			Not used		
R520			Not used		
R521			Not used		
R522			Not used		
R523			Not used		
R524			Not used		
R525			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R602	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R603	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P06			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P09	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630052	AC40-30072F	AC40-30072F	TM-BLOCK;TCMM0601PD08A,SECAM-L/G/I/K,181	
XT4N01			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description, Specification	Remark
<b>V-729W ONLY (Compared with V-709B)</b>					

**-PACKING PARTS-**

A701	BY634192	AC69-50913C	AC69-50913C	PACKING CASE;V-729W,-,-,428,-	
UT01	BY634143	AC59-00005R	AC59-00005R	REMOCON-ASSY;-VT-729W,-,-,45KEY;V-729W,-	
Y101	BY634081	AC68-00245A	AC68-00245A	MANUAL-USERS;V-729W,MOJO100,-, ,ITALY/SP	
Y104	BY634162	AC68-00169A	AC68-00169A	MANUAL-USERS;V-729W,MOJO100,-, ,ENG/ITA/	

**-INSTRUMENT PARTS-**

1	BY730424	AC98-12106A	AC98-12106A	ASSY-PANEL FRONT;V-729W/TSB,HIPS94HB BLK	
21	BY730318	AC64-52160G	AC64-52160G	DOOR-CASSETTE;V-729W,ABS,94HB,T2.5,-,BLK	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730220	AC61-11061B	AC61-11061B	CONNECTOR BOARD-ASSY;V-629G/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

SAME AS V-729B

**-ELECTRICAL PARTS-**

601	BY630075	AC92-00057A	AC92-00057A	ASSY-PCB-MAIN;V-729W/TSB,2S VFD-A 99T	
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**<INTERGRATED CIRCUITS>**

IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375MIL,PLAST	

**<TRANSISTORS>**

Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q802			Not used		
Q803			Not used		
Q804			Not used		

**<DIODES>**

D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		

**<INDUCTORS>**

L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	

**<CAPACITORS>**

C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A22			Not used		
C3A31			Not used		
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL;12NF,10%,50V,Y5P,TP	
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C802	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C804	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C806	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C811	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C812	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C813	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,-,TP	
C841			Not used		

## &lt;RESISTORS&gt;

R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P06			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;200OHM,5%,1/8W,AA,TP,-	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

## &lt;MISCELLANEOUS&gt;

SAME AS V-709B

**V-429W ONLY (Compared with V-709B)****-PACKING PARTS-**

A701	BY634197	AC69-50913H	AC69-50913H	PACKING CASE;V-429W,-,-,428,-	
UT01	BY634144	AC59-00005S	AC59-00005S	REMOCON-ASSY;-VT-429W,-,-,45KEY,V-429W,-	
Y101	BY634082	AC68-00247A	AC68-00247A	MANUAL-USERS;V-429W/V-209W,MOJO100,-,-,I	
Y105	BY634163	AC68-00170A	AC68-00170A	MANUAL-USERS;-MOJO100,-,-,ENG/ITA/SPA,-	

**-INSTRUMENT PARTS-**

1	BY730429	AC98-12106F	AC98-12106F	ASSY-PANEL FRONT;V-429W/TSB,HIPS94HB BLK	
21	BY730323	AC64-52160M	AC64-52160M	DOOR-CASSETTE;V-429W,ABS,94HB,T2.5,-,BLK	
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K	
TM401B	BY730223	AC61-11061E	AC61-11061E	CONNECTOR BOARD-ASSY;V-429G/TSB,HIPS94,H	

**-MECHANICAL PARTS-**

G001	BY730385	AC96-10481J	AC96-10481J	ASSY-CYLINDER;CX-9,PAL 4HD	
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**-ELECTRICAL PARTS-**

601	BY630086	AC93-10867P	AC93-10867P	ASSY-MAIN;SV-429W/TSB,COBRA PAL B/G,D/K	
602			Not used		

## &lt;INTERGRATED CIRCUITS&gt;

IC4N01			Not used		
IC501			Not used		
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12	
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,I	
IC801	BY631064	1205-001484	1205-001484	IC-SWITCH;LA7147M,SOP,36PIN,375ML,PLAST	

## &lt;TRANSISTORS&gt;

Q1P103			Not used		
Q1P108	70795142	0501-000442	62139-301-311	TR-SMALL SIGNAL;KTC3203-Y,NPN,400MW,T0-9	
Q1P113	70795818	0501-000290	62147-101-950	TR-SMALL SIGNAL;KSA643-Y,PNP,500MW,T0-92	
Q1P118	70693084	0504-000142	A4050-0224	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T	
Q3D01			Not used		
Q3D02			Not used		
Q3D03			Not used		
Q802			Not used		
Q803			Not used		
Q804			Not used		

## &lt;DIODES&gt;

D1P112	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P114	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P116	70795150	0401-000101	62169-406-482	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D4N01			Not used		
D4N02			Not used		
ZD1P06	BY430015	0403-001211	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD801			Not used		

## &lt;INDUCTORS&gt;

FL3D01			Not used		
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Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
L3D01			Not used		
L3D01			Not used		
L402			Not used		
L4N01			Not used		
L4N02			Not used		
L4N03			Not used		
L4N04			Not used		
L502			Not used		
L503			Not used		
L801	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L802	70795172	AC27-92001B	62429-833-101	COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,-	
L805	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
L806	BY330053	2701-000181	2701-000181	INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM	
<b>&lt;CAPACITORS&gt;</b>					
C1P107			Not used		
C1P117	BY130042	2401-000598	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312			Not used		
C360			Not used		
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M	
C3D01			Not used		
C3D02			Not used		
C3D03			Not used		
C3D04			Not used		
C3D05			Not used		
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
C4N07			Not used		
C4N08			Not used		
C4N09			Not used		
C4N10			Not used		
C4N11			Not used		
C4N12			Not used		
C4N13			Not used		
C4N14			Not used		
C4N15			Not used		
C4N16			Not used		
C4N17			Not used		
C4N18			Not used		
C4N19			Not used		
C4N21			Not used		
C4N22			Not used		
C4N23			Not used		
C4N24			Not used		
C501			Not used		
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C523			Not used		
C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL;.12NF,10%,50V,Y5P,TP	

## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
C801	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C803	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C805	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C807	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C808	BY130273	2401-000414	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C809	70795769	2401-001919	61617-408-229	C-AL;2.2uF,20%,50V,-,TP,4X7MM,5	
C810	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C814	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C815	BY130047	2401-002075	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C817	BY130049	2401-002144	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C818	70795075	2202-000797	61407-117-104	C-CERAMIC,MLC-AXIAL;10nF,30%,16V,Y5S,TP,	
C819	BY130280	2401-002165	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C820	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C823	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C826	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C827	BY130069	2202-000121	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C832			Not used		
C833			Not used		
C834	BY130263	2202-000231	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
C838			Not used		
C840	BY130015	2401-001479	A1104-0478	C-AL;470uF,20%,10V,GP,-,TP	
C841			Not used		
<b>&lt;RESISTORS&gt;</b>					
R1P118	70796067	2001-000362	61048-177-151	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R1P124	70795007	2001-000273	61048-177-104	R-CARBON;100KOHM,5%,1/8W,AA,TP,-	
R1P126	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A28	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R4N10			Not used		
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R540			Not used		
R570			Not used		
R571			Not used		
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P06			Not used		
R6P07	70796356	2001-000490	61048-177-201	R-CARBON;2000HM,5%,1/8W,AA,TP,-	
R6P09	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R6P10	70795019	2001-000515	61048-177-221	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R801	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R802	70795004	2001-000281	61048-177-101	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R809	70795054	2001-000969	61048-177-750	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R819	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R820	70795025	2001-000554	61048-177-271	R-CARBON;270ohm,5%,1/8W,AA,TP,1.8x3.2mm	

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description : Specification	Remark
R823	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	70795026	2001-000563	61048-177-273	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
W229			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

### V-209W ONLY (Compared with V-709B)

#### -PACKING PARTS-

A701	BY634203	AC69-50913Q	AC69-50913Q	PACKING CASE;V-209W,-,-,428,-
UT01	BY634145	AC59-00005T	AC59-00005T	REMOCON-ASSY;-,-VT-209W,-,-,45KEY,V-209W,V-
Y101	BY634082	AC68-00247A	AC68-00247A	MANUAL-USERS;V-429W/V-209W,MOJO100,-,-,I
Y105	BY634163	AC68-00170A	AC68-00170A	MANUAL-USERS;-,-MOJO100,-,-,ENG/ITA/SPA,-

#### -INSTRUMENT PARTS-

1	BY730435	AC98-12106N	AC98-12106N	ASSY-PANEL FRONT;V-209W/TSB,HIPS94HB BLK
21	BY730329	AC64-52160U	AC64-52160U	DOOR-CASSETTE;V-209W,ABS,94HB,T2.5,-,BLK
200	BY634124	AC39-10019A	AC39-10019A	POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-K
TM401B	BY730225	AC61-11061G	AC61-11061G	CONNECTOR BOARD-ASSY;V-209B/TSB,HIPS94,H

#### -MECHANICAL PARTS-

G001	BY730420	AC97-00229A	AC97-00229A	ASSY-CYLINDER;CX9-S2PLB,-,-
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#### -ELECTRICAL PARTS-

601	BY630087	AC93-10867Q	AC93-10867Q	ASSY-MAIN;SV-209W/TSB,COBRA PAL B/G,D/K
602			Not used	

#### <INTERGRATED CIRCUITS>

IC4N01			Not used	
IC501			Not used	
IC601	BY631035	AC09-00024D	AC09-00024D	IC-MCU;UPD784927GF-121-3BA,100P,-,N90-12
IC6P01	BY631066	AC09-10459G	AC09-10459G	IC-MCU;LC74789M-9763,24P,MFP,OSD IC,-,-,

#### <TRANSISTORS>

Q1P103			Not used	
Q310			Not used	
Q3D01			Not used	
Q3D02			Not used	
Q3D03			Not used	
Q3S02	70795138	0504-000203	62137-701-013	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-
Q803			Not used	

#### <DIODES>

D4N01			Not used	
D4N02			Not used	
ZD801			Not used	

#### <INDUCTORS>

FL3D01			Not used	
L3D01			Not used	
L402			Not used	
L4N01			Not used	
L4N02			Not used	
L4N03			Not used	
L4N04			Not used	
L502			Not used	
L503			Not used	
L6B01			Not used	
L811			Not used	
L812			Not used	

#### <CAPACITORS>

C1P107			Not used	
C312			Not used	
C360			Not used	
C3A11	BY130145	2301-000253	2301-000253	C-FILM,PEF;39NF,5%,100V,TP,7.5X4.5X12.5M
C3A22	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
C3A31	BY130027	2202-002037	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
C3D01			Not used	
C3D02			Not used	
C3D03			Not used	
C3D04			Not used	
C3D05			Not used	

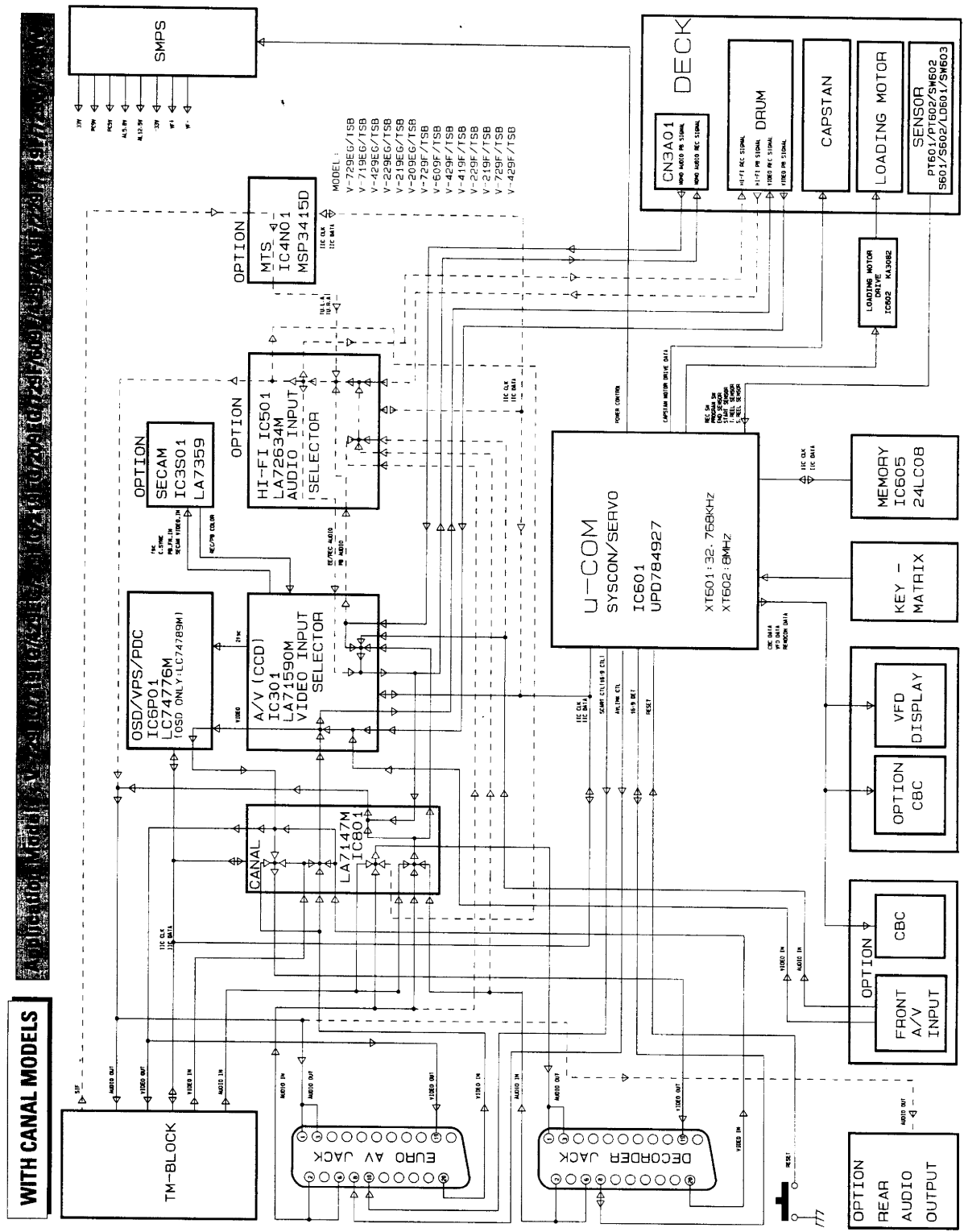


## Replacement Parts List

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
C4N01			Not used		
C4N02			Not used		
C4N03			Not used		
C4N04			Not used		
C4N05			Not used		
C4N06			Not used		
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C524			Not used		
C525			Not used		
C526			Not used		
C527			Not used		
C530			Not used		
C531			Not used		
C532			Not used		
C6P06			Not used		
C6P07			Not used		
C6P09	BY130170	2202-000145	2202-000145	C-CERAMIC,MLC-AXIAL; 12NF,10%,50V,Y5P,TP	
C6P20	70795082	2202-000295	2202-000295	C-CERAMIC,MLC-AXIAL;68pF,5%,50V,SL,3.5x1	
C832			Not used		
C833			Not used		
C838			Not used		
<b>&lt;RESISTORS&gt;</b>					
R343			Not used		
R3A27	70795447	2001-000878	61048-177-622	R-CARBON;6.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R3A28	70795036	2001-000613	61048-177-392	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,-	
R3A29			Not used		
R3A31	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A32	70795038	2001-000766	61048-177-433	R-CARBON;43Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R3A33			Not used		
R3D01			Not used		
R3D02			Not used		
R3D03			Not used		
R4N01			Not used		
R4N02			Not used		
R4N03			Not used		
R4N04			Not used		
R4N05			Not used		
R4N06			Not used		
R501			Not used		

Loc.No.	TSB Parts No.	New Reference No.	Old Reference No.	Description ; Specification	Remark
R502			Not used		
R503			Not used		
R504			Not used		
R505			Not used		
R506			Not used		
R507			Not used		
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R524			Not used		
R525			Not used		
R533			Not used		
R540			Not used		
R570			Not used		
R571			Not used		
R6P01			Not used		
R6P02			Not used		
R6P03			Not used		
R6P04			Not used		
R6P06			Not used		
R6P09	70795020	2001-000449	61048-177-222	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
W229			Not used		
R4N10			Not used		
R810			Not used		
R811			Not used		
R821			Not used		
R822			Not used		
<b>&lt;MISCELLANEOUS&gt;</b>					
CN301	70796410	3708-000395	A6013-0941	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CN4N01			Not used		
JC801	BY634114	3710-000482	3710-000482	CONNECTOR-SOCKET;21P,-,ANGLE,SN	
JC802			Not used		
TM401	BY630051	AC40-30072D	AC40-30072D	TM-BLOCK;TCMK0600PD08A,PAL-BG/I/DK,181C	
XT4N01			Not used		

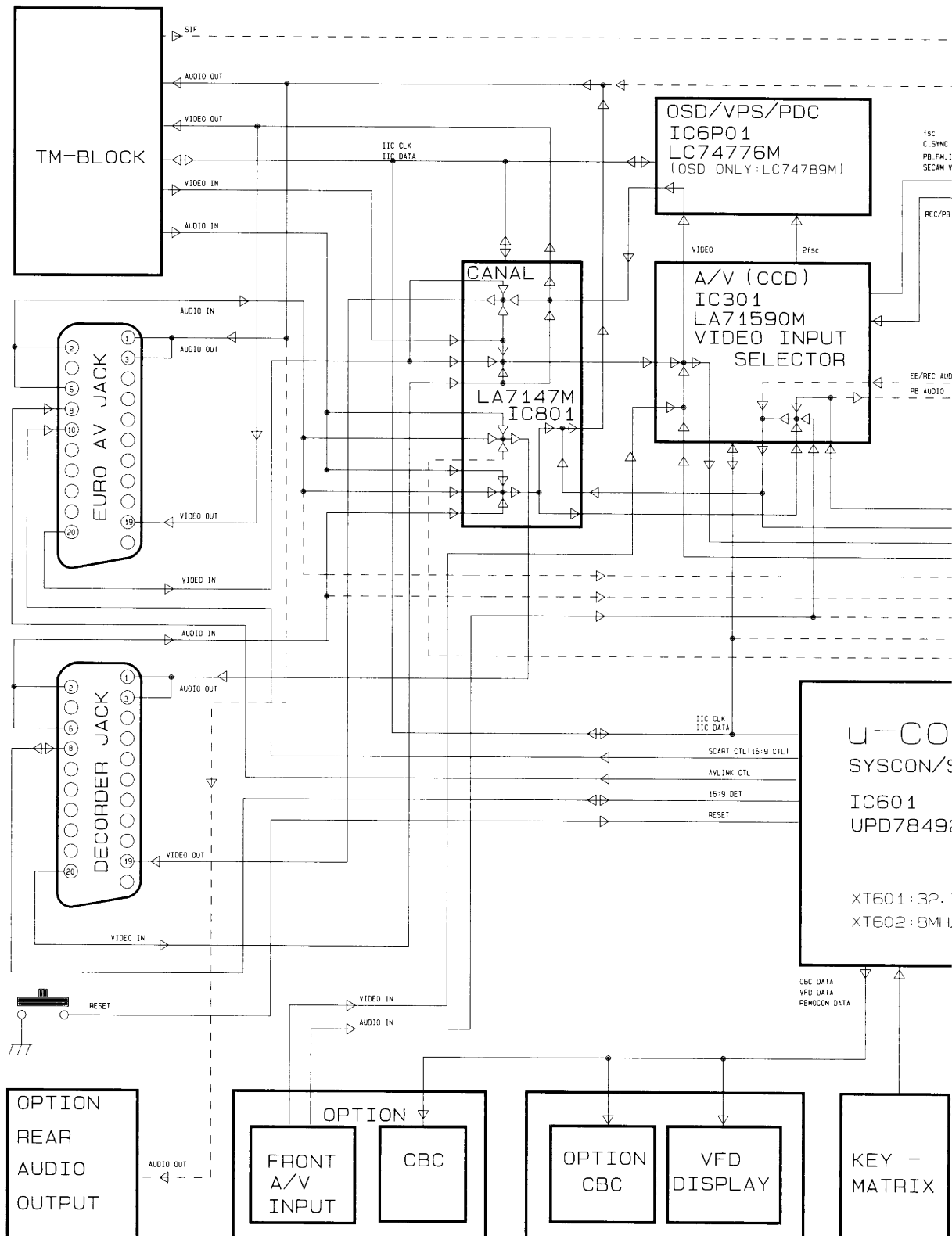
## 8. Block Diagrams



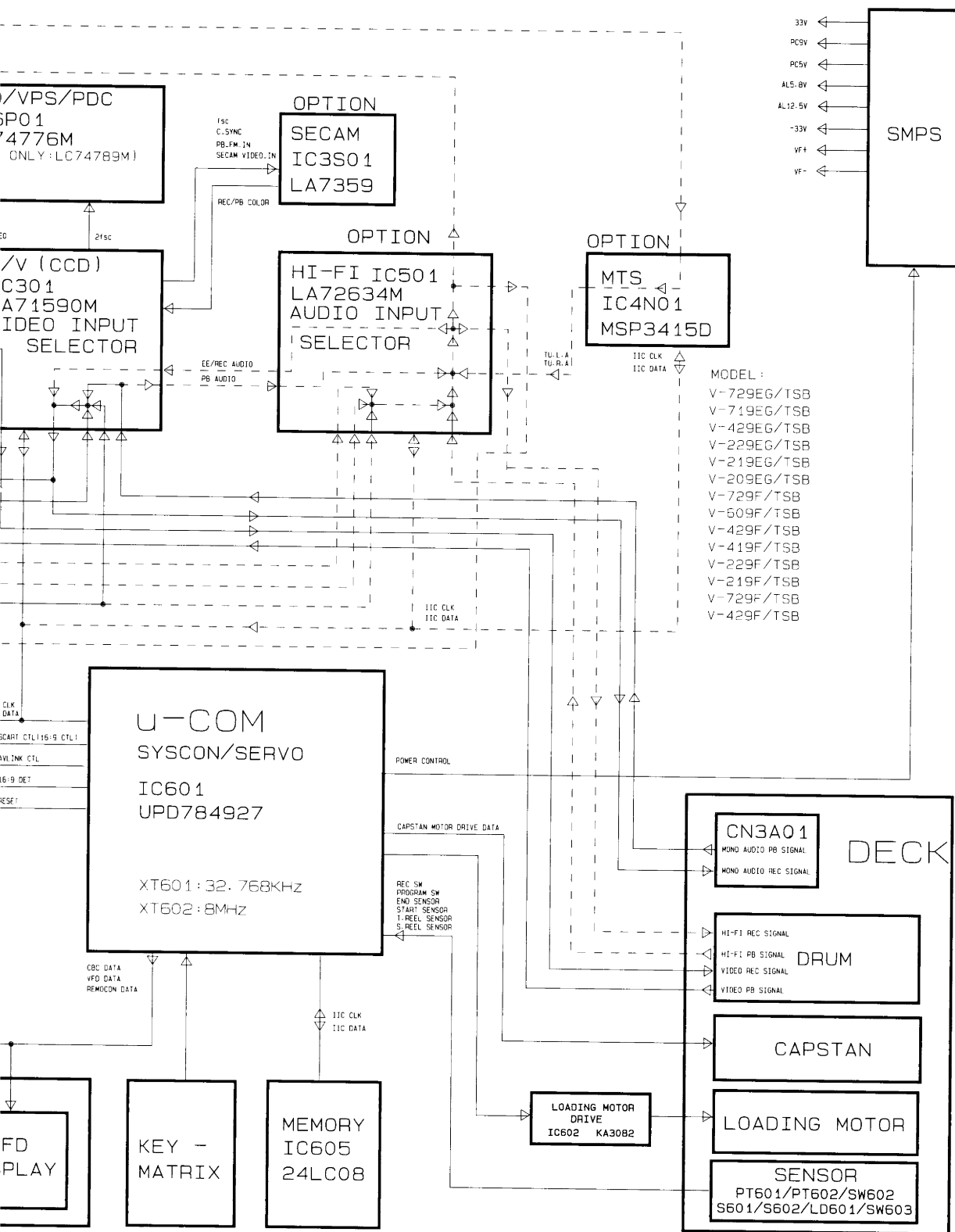
## 8. Block Diagrams

### WITH CANAL MODELS

### Application Models ; V-729EG/719EG/429EG/229EG



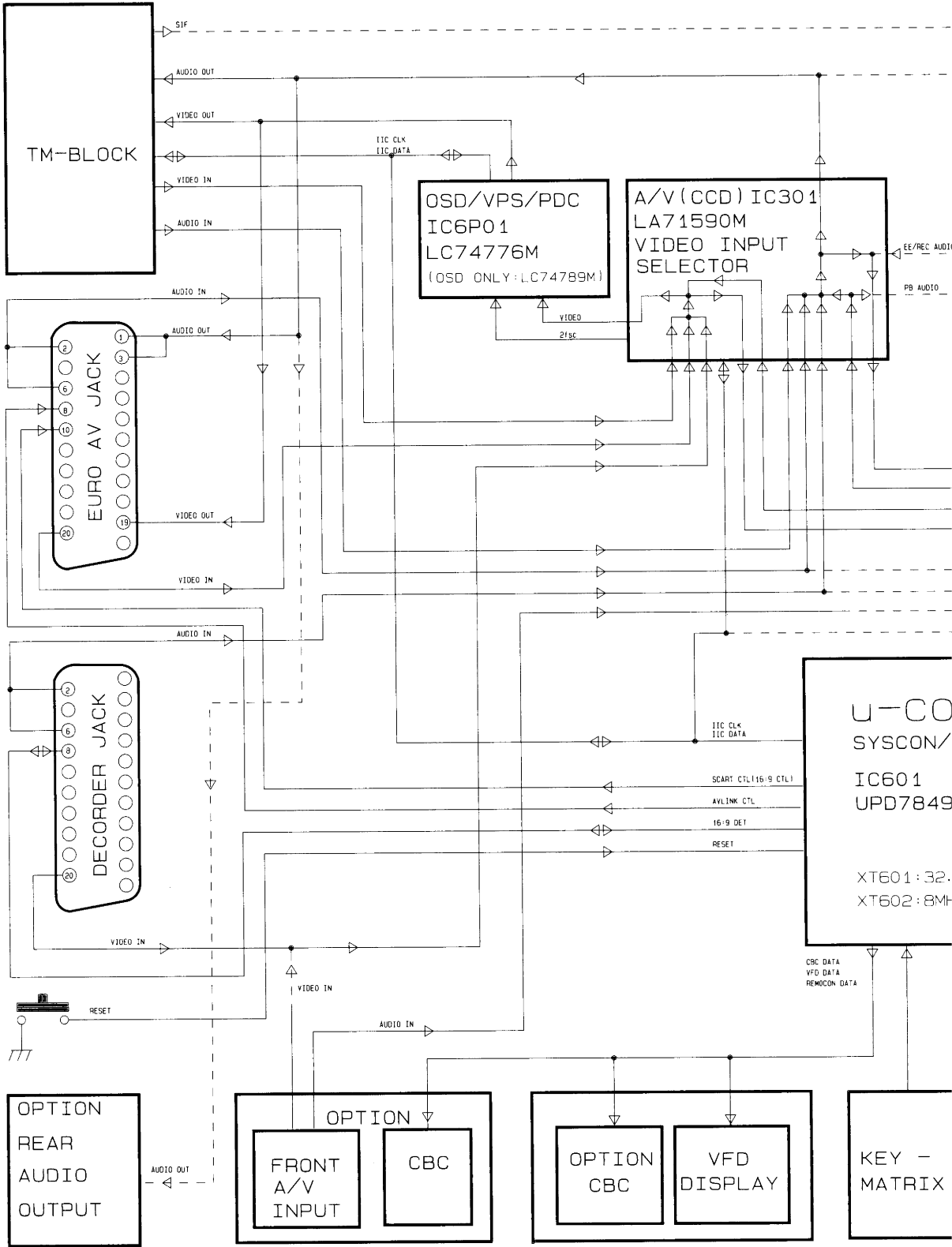
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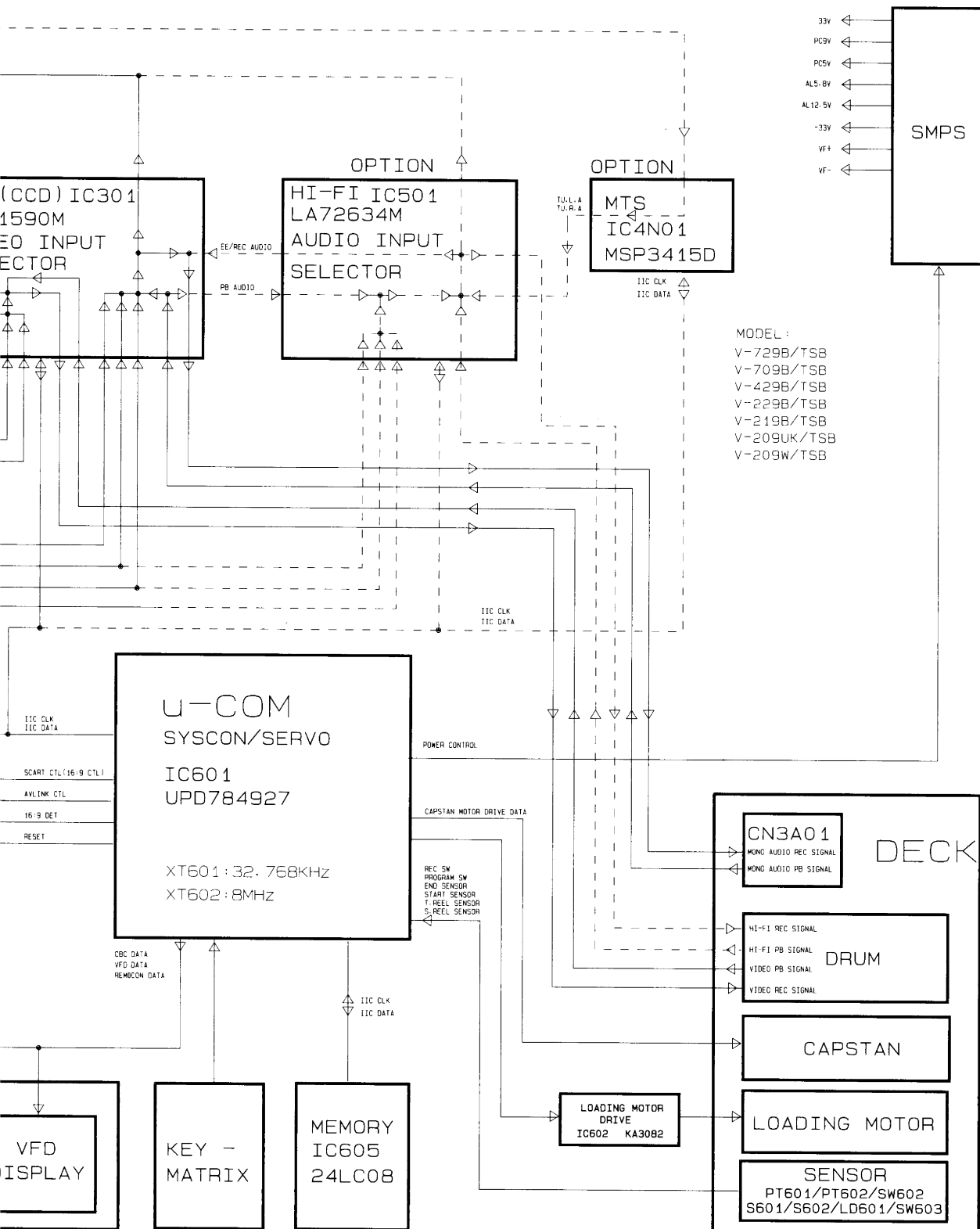


WITHOUT CANAL MODELS

Application Models ; V-729B/709B/429B/229B/2



# 729B/709B/429B/229B/219B/209UK/209W





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## 9. PCB Diagrams

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9-1 Main	9-2
9-2 Function-Timer (With AV-Link)	9-4
9-3 Function-Timer (Without AV-Link)	9-4
9-4 NICAM	9-4
9-5 Front Jack/CBC	9-4

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## 9. PCB Diagrams

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9-1 Main - - - - -	9-2
9-2 Function-Timer (With AV-LinK) - - - - -	9-4
9-3 Function-Timer (Without AV-LinK) - - - - -	9-4
9-4 NICAM - - - - -	9-4
9-5 Front Jack/CBC - - - - -	9-4

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----- 9-2

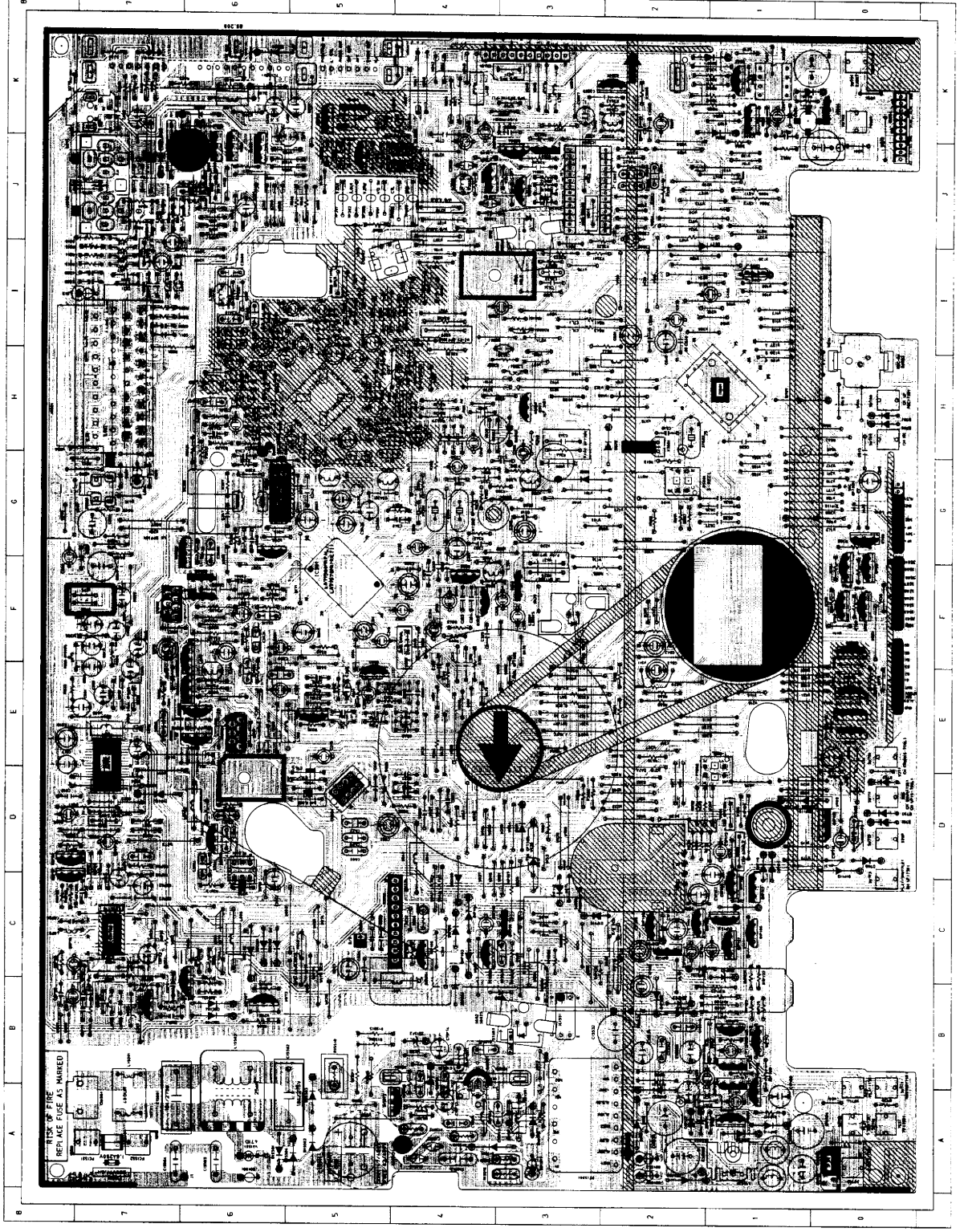
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----- 9-4

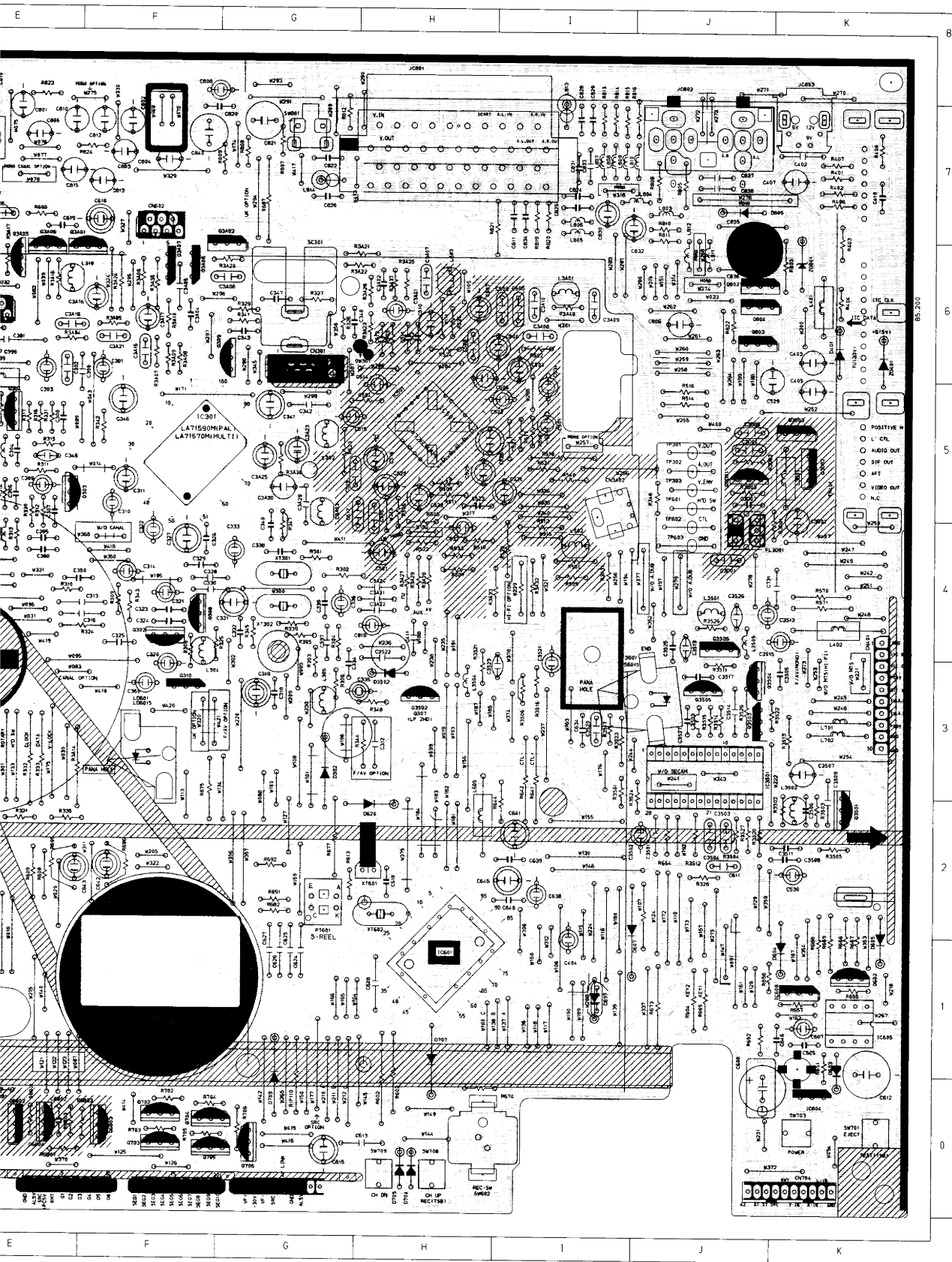
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----- 9-4

# 9-1 Main









\*\*\* RESISTOR \*\*\*

\*\*\* CONDENSER \*\*\*

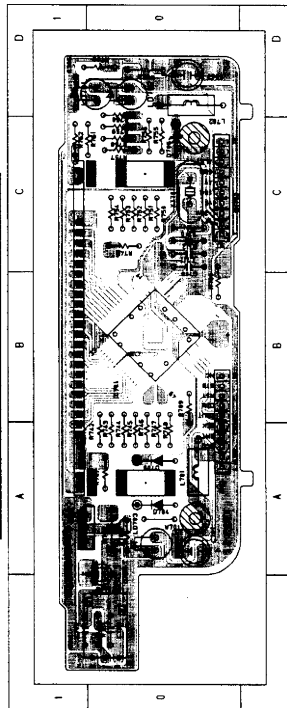
RIP103 (B1)	R348 (H3)	R521 (I5)	R814 (I7)	CIP101 (C2)	C347 (G6)	C517 (H4)
RIP105 (C4)	R3A01 (D3)	R522 (H4)	R815 (I7)	CIP102 (A1)	C348 (G6)	C518 (H5)
RIP106 (C4)	R3A04 (E6)	R523 (G5)	R816 (J7)	CIP103 (A1)	C349 (E4)	C519 (G5)
RIP107 (D3)	R3A05 (F6)	R524 (H6)	R819 (I7)	CIP104 (C1)	C350 (F4)	C520 (H5)
RIP108 (A1)	R3A06 (F6)	R525 (H6)	R820 (I7)	CIP105 (C2)	C360 (F3)	C521 (H4)
RIP109 (B1)	R3A07 (F6)	R533 (H4)	R821 (I6)	CIP106 (D1)	C380 (E4)	C522 (H5)
RIP110 (G0)	R3A08 (F6)	R570 (K4)	R822 (J6)	CIP107 (C1)	C381 (E6)	C523 (H5)
RIP111 (B1)	R3A09 (F6)	R571 (K4)	R823 (E8)	CIP108 (C2)	C390 (F6)	C524 (I5)
RIP112 (B1)	R3A10 (F6)	R601 (D4)	R824 (E7)	CIP110 (C4)	C399 (E6)	C525 (H5)
RIP115 (B6)	R3A11 (C6)	R602 (H0)	W107 (J1)	CIP113 (D1)	C3A01 (H6)	C526 (H5)
RIP116 (B5)	R3A12 (D6)	R603 (H1)	W229 (I4)	CIP114 (D0)	C3A02 (H6)	C527 (I5)
RIP117 (A1)	R3A13 (C6)	R604 (J1)	XT301 (G4)	CIP115 (B1)	C3A04 (F6)	C529 (J5)
RIP118 (B2)	R3A14 (E2)	R605 (J1)	XT302 (G4)	CIP116 (B1)	C3A05 (F6)	C530 (K2)
RIP119 (D0)	R3A16 (E6)	R608 (E2)		CIP117 (C2)	C3A06 (G6)	C531 (I6)
RIP120 (D1)	R3A17 (E6)	R609 (E2)		CISD03 (A6)	C3A07 (H6)	C532 (H4)
RIP121 (C1)	R3A18 (E6)	R613 (G2)		CISD04 (A7)	C3A08 (I6)	C601 (C5)
RIP122 (C1)	R3A19 (D6)	R641 (I2)		CISD12 (A4)	C3A09 (I6)	C602 (C5)
RIP123 (B1)	R3A20 (F6)	R642 (I2)		CISF12 (A4)	C3A10 (I6)	C603 (C5)
RIP124 (B6)	R3A21 (C6)	R650 (C4)		CISF13 (A3)	C3A11 (D6)	C604 (B5)
RIP125 (B1)	R3A22 (G6)	R651 (K0)		CISF14 (B4)	C3A12 (C6)	C605 (K1)
RIP126 (B6)	R3A23 (H6)	R652 (J1)		CISF15 (B4)	C3A13 (D6)	C607 (K1)
RIP127 (B1)	R3A24 (F6)	R654 (J2)		CISR12 (A4)	C3A14 (C6)	C610 (H2)
RIP128 (B3)	R3A25 (H6)	R655 (K1)		CISR13 (B4)	C3A15 (F6)	C611 (J2)
RIP129 (B2)	R3A26 (H6)	R656 (J1)		CISR14 (A4)	C3A16 (F6)	C612 (K1)
R1SD11 (B5)	R3A27 (H4)	R657 (K1)		CISR15 (A4)	C3A17 (F6)	C613 (G0)
R1SD12 (A3)	R3A28 (H4)	R660 (D5)		CISR16 (A4)	C3A18 (E6)	C614 (E6)
R1SD13 (B5)	R3A29 (H4)	R666 (K1)		CIS501 (B7)	C3A21 (F6)	C615 (G0)
R1SD14 (B4)	R3A30 (G5)	R667 (K1)		CIS502 (A5)	C3A22 (H4)	C618 (F7)
R1SD15 (A5)	R3A31 (I4)	R668 (K1)		CIS512 (A4)	C3A23 (G5)	C619 (E7)
R1SD16 (A3)	R3A32 (I4)	R669 (K1)		CIS531 (B2)	C3A24 (H4)	C620 (D4)
R1SD31 (B3)	R3A33 (I4)	R670 (D2)		CIS532 (B2)	C3A25 (G5)	C621 (D4)
R1SD32 (C3)	R3A35 (F6)	R671 (D2)		CIS533 (A2)	C3A29 (G4)	C622 (D5)
R1SR11 (B4)	R3A37 (H6)	R672 (D1)		CIS534 (A1)	C3A30 (G5)	C623 (D4)
R1SR12 (A4)	R3A40 (I6)	R673 (J1)		CIS535 (A2)	C3A31 (H4)	C624 (G1)
R1SR14 (A4)	R3D01 (K4)	R674 (H0)		CIS536 (A1)	C3D01 (J4)	C625 (G1)
R1SR15 (A4)	R3D02 (J5)	R675 (F2)		CIS537 (J5)	C3D02 (K5)	C626 (G1)
R1SS10 (B5)	R3D03 (J5)	R676 (E2)		CIS538 (B2)	C3D03 (J5)	C627 (G1)
R1SS11 (A3)	R3S01 (I2)	R677 (G2)		CIS539 (C3)	C3D04 (J5)	C628 (H1)
R1SS13 (A4)	R3S02 (K2)	R678 (D2)		CIS540 (B2)	C3D05 (J5)	C633 (B3)
R1SS31 (B2)	R3S03 (K2)	R679 (D2)		CIS541 (B2)	C3S01 (J2)	C634 (I3)
R1SS32 (C3)	R3S04 (J2)	R682 (G2)		C301 (F5)	C3S02 (J2)	C635 (D4)
R1SS33 (C3)	R3S05 (K2)	R685 (D4)		C302 (E5)	C3S03 (J2)	C636 (D4)
R1SS34 (B3)	R3S06 (I3)	R687 (G6)		C303 (E5)	C3S04 (J2)	C637 (D4)
R301 (G4)	R3S11 (J3)	R690 (E7)		C304 (E5)	C3S05 (K3)	C638 (I2)
R302 (G4)	R3S12 (J2)	R691 (G2)		C305 (E4)	C3S06 (K2)	C639 (I2)
R303 (G4)	R3S13 (K3)	R692 (G2)		C306 (E5)	C3S07 (K3)	C640 (I2)
R304 (G3)	R3S14 (J3)	R693 (C6)		C307 (E4)	C3S08 (K2)	C641 (I2)
R305 (G4)	R3S15 (J3)	R694 (C6)		C308 (E5)	C3S09 (K2)	C642 (F2)
R306 (G3)	R3S16 (I3)	R695 (E2)		C309 (E5)	C3S11 (K2)	C643 (E2)
R308 (F3)	R3S17 (I3)	R696 (F2)		C310 (F5)	C3S13 (J4)	C645 (I2)
R309 (F4)	R3S20 (J2)	R6B01 (E0)		C311 (F5)	C3S14 (J3)	C646 (K1)
R310 (E4)	R3S21 (H3)	R6B02 (F0)		C312 (H3)	C3S15 (J4)	C690 (D5)
R311 (E5)	R3S22 (K3)	R6B03 (E0)		C313 (E4)	C3S17 (J3)	C691 (D5)
R312 (E4)	R3S23 (I3)	R6B07 (E0)		C314 (F4)	C3S19 (J4)	C692 (E7)
R313 (E4)	R3S24 (J2)	R6P01 (C7)		C315 (E5)	C3S20 (I3)	C697 (I1)
R314 (E5)	R3S25 (J4)	R6P02 (C7)		C316 (E4)	C3S21 (I3)	C698 (D0)
R315 (E5)	R3S26 (J3)	R6P03 (C7)		C318 (G3)	C3S22 (H3)	C699 (D5)
R316 (E5)	R3S27 (J2)	R6P04 (D7)		C319 (G3)	C3S23 (I3)	C6B01 (E0)
R317 (E5)	R401 (K7)	R6P05 (B7)		C320 (F3)	C3S25 (J3)	C6B02 (E0)
R318 (E5)	R402 (K7)	R6P06 (C8)		C321 (F4)	C3S26 (J4)	C6B03 (E0)
R320 (D2)	R403 (K6)	R6P07 (C7)		C322 (F4)	C3S27 (J3)	C6B04 (E0)
R321 (E2)	R404 (K6)	R6P08 (C8)		C323 (F4)	C402 (K7)	C6P01 (B7)
R322 (D2)	R405 (B6)	R6P09 (C8)		C324 (F4)	C403 (K6)	C6P02 (C7)
R324 (E4)	R406 (K7)	R6P10 (D7)		C325 (F4)	C404 (I1)	C6P03 (C7)
R325 (F4)	R407 (K7)	R6P11 (B7)		C326 (F4)	C405 (K5)	C6P04 (B7)
R326 (G6)	R408 (K7)	R702 (F0)		C327 (F4)	C407 (K7)	C6P05 (B7)
R327 (G6)	R501 (I4)	R703 (F0)		C328 (F4)	C410 (K7)	C6P06 (D7)
R328 (J2)	R502 (I6)	R704 (F0)		C329 (F4)	C411 (H4)	C6P07 (C7)
R329 (G6)	R503 (H6)	R705 (F0)		C330 (F4)	C501 (I5)	C6P08 (C7)
R330 (E4)	R504 (G5)	R706 (G0)		C331 (G4)	C502 (I5)	C6P09 (B8)
R331 (E5)	R505 (I4)	R727 (A0)		C332 (G4)	C503 (I5)	C6P10 (C8)
R332 (E2)	R506 (H4)	R728 (A0)		C333 (G4)	C504 (I6)	C6P11 (B8)
R333 (E2)	R507 (H4)	R801 (D7)		C334 (G3)	C505 (I6)	C6P12 (C7)
R334 (D4)	R508 (H4)	R802 (D7)		C335 (G3)	C506 (H6)	C6P13 (C7)
R335 (E2)	R509 (H5)	R803 (K6)		C336 (G4)	C507 (H6)	C6P14 (B7)
R336 (D3)	R510 (H4)	R805 (J7)		C337 (G3)	C508 (H6)	C6P15 (B7)
R339 (G4)	R511 (H5)	R806 (J7)		C338 (G4)	C509 (I6)	C6P20 (C7)
R341 (G6)	R512 (I4)	R807 (G7)		C339 (G4)	C510 (H6)	C731 (K4)
R342 (F5)	R514 (J5)	R808 (G7)		C340 (G4)	C511 (H6)	C801 (E7)
R343 (F4)	R516 (J5)	R809 (G7)		C341 (G5)	C512 (H6)	C802 (F7)
R344 (H3)	R517 (I5)	R810 (J7)		C342 (G5)	C513 (H6)	C803 (F7)
R345 (G4)	R518 (I5)	R811 (J7)		C343 (G6)	C514 (H5)	C804 (F7)
R346 (J5)	R519 (I5)	R812 (G7)		C345 (E5)	C515 (H5)	C805 (E7)
R347 (G4)	R520 (I4)	R813 (I7)		C346 (F5)	C516 (H4)	C806 (J6)



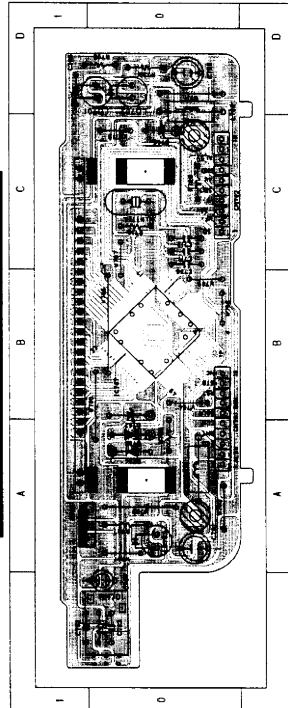
*** DIODE ***		*** TR ***		*** IC&WAFER ***		*** CHIP ***	
C347 (G6)	C517 (H4)	C807 (D7)	D1P101 (C2)	IC1SS2 (C4)	CN1SS1 (A7)	IC501 (H5)	
C348 (G6)	C518 (H5)	C808 (F8)	D1P103 (C4)	IC604 (K0)	CN3A01 (E6)	IC6P01 (C7)	
C349 (E4)	C519 (G5)	C809 (D7)	D1P104 (C4)	IC608 (K1)	CN401 (K4)		
C350 (F4)	C520 (H5)	C810 (E7)	D1P105 (C4)	Q1P101 (C1)	CN601 (C5)		
C360 (F3)	C521 (H4)	C811 (I7)	D1P108 (A1)	Q1P102 (C1)	CN602 (F7)		
C380 (E4)	C522 (H5)	C812 (F7)	D1P109 (B2)	Q1P103 (C1)	CN704 (K0)		
C381 (E6)	C523 (H5)	C813 (F7)	D1P110 (D1)	Q1P104 (C4)	IC3S01 (J2)		
C390 (F6)	C524 (I5)	C814 (E7)	D1P111 (D1)	Q1P105 (C3)	IC605 (K1)		
C399 (E6)	C525 (H5)	C815 (E7)	D1P112 (C3)	Q1P106 (C1)	JC801 (H7)		
C3A01 (H6)	C526 (H5)	C816 (H4)	D1P113 (D0)	Q1P107 (B6)			
C3A02 (H6)	C527 (I5)	C817 (E8)	D1P114 (D7)	Q1P108 (C2)			
C3A04 (F6)	C529 (J5)	C819 (E8)	D1P115 (C1)	Q1P109 (C2)			
C3A05 (F6)	C530 (K2)	C820 (G7)	D1P116 (C3)	Q1P110 (D0)			
C3A06 (G6)	C531 (I6)	C821 (G7)	D1P117 (A2)	Q1P111 (C1)			
C3A07 (H6)	C532 (H4)	C822 (G7)	D1P118 (A1)	Q1P112 (B1)			
C3A08 (I6)	C601 (C5)	C823 (D7)	D1P119 (D1)	Q1P113 (B6)			
C3A09 (I6)	C602 (C5)	C824 (I7)	D1SD31 (A2)	Q1P114 (A1)			
C3A10 (I6)	C603 (C5)	C825 (I7)	D1SD32 (A2)	Q1P115 (B1)			
C3A11 (D6)	C604 (B5)	C826 (G7)	D1SR11 (B4)	Q1P116 (A1)			
C3A12 (C6)	C605 (K1)	C827 (D7)	D1SS01 (A6)	Q1P117 (B1)			
C3A13 (D6)	C607 (K1)	C828 (I7)	D1SS02 (A5)	Q1P118 (C2)			
C3A14 (C6)	C610 (H2)	C829 (I7)	D1SS03 (B5)	Q1P120 (B1)			
C3A15 (F6)	C611 (J2)	C830 (I7)	D1SS04 (A5)	Q1SR12 (A4)			
C3A16 (F6)	C612 (K1)	C831 (I7)	D1SS11 (A4)	Q302 (F4)			
C3A17 (F6)	C613 (G0)	C832 (I7)	D1SS12 (A3)	Q303 (E5)			
C3A18 (E6)	C614 (E6)	C833 (I7)	D1SS31 (B2)	Q304 (E5)			
C3A21 (F6)	C615 (G0)	C834 (I7)	D1SS32 (A1)	Q308 (F4)			
C3A22 (H4)	C618 (F7)	C835 (J7)	D1SS33 (A1)	Q309 (G6)			
C3A23 (G5)	C619 (E7)	C836 (J6)	D1SS44 (B2)	Q310 (F3)			
C3A24 (H4)	C620 (D4)	C837 (J7)	D302 (G3)	Q3A01 (E6)			
C3A25 (G5)	C621 (D4)	C838 (J7)	D3S02 (H3)	Q3A02 (G6)			
C3A29 (G4)	C622 (D5)	C840 (F7)	D401 (K6)	Q3A03 (D6)			
C3A30 (G5)	C623 (D4)	C841 (D7)	D603 (K0)	Q3A04 (E6)			
C3A31 (H4)	C624 (G1)	XT601 (H2)	D604 (K1)	Q3A05 (E6)			
C3D01 (J4)	C625 (G1)	XT602 (H2)	D605 (K1)	Q3A06 (E6)			
C3D02 (K5)	C626 (G1)		D607 (J1)	Q3A07 (F6)			
C3D03 (J5)	C627 (G1)		D611 (D3)	Q3A08 (F6)			
C3D04 (J5)	C628 (H1)		D620 (H2)	Q3D01 (J5)			
C3D05 (J5)	C633 (B3)		D6B01 (B0)	Q3D02 (K5)			
C3S01 (J2)	C634 (I3)		D701 (D0)	Q3D03 (K5)			
C3S02 (J2)	C635 (D4)		D702 (D0)	Q3S01 (K3)			
C3S03 (J2)	C636 (D4)		D703 (D0)	Q3S02 (H3)			
C3S04 (J2)	C637 (D4)		D704 (H0)	Q3S03 (J3)			
C3S05 (K3)	C638 (I2)		D705 (H0)	Q3S04 (J3)			
C3S06 (K2)	C639 (I2)		D707 (H0)	Q3S05 (J3)			
C3S07 (K3)	C640 (I2)		D708 (D0)	Q3S06 (J4)			
C3S08 (K2)	C641 (I2)		D709 (G1)	Q602 (K1)			
C3S09 (K2)	C642 (F2)		D805 (J7)	Q6B01 (E0)			
C3S11 (K2)	C643 (E2)		DDC101 (C6)	Q6B02 (E0)			
C3S13 (J4)	C645 (I2)		DDC102 (C6)	Q6B03 (F0)			
C3S14 (J3)	C646 (K1)		DDC103 (B6)	Q6B04 (E0)			
C3S15 (J4)	C690 (D5)		DDC104 (B6)	Q6P01 (D7)			
C3S17 (J3)	C691 (D5)		DDC105 (B6)	Q6P02 (C7)			
C3S19 (J4)	C692 (E7)		DDC106 (C4)	Q6P03 (B7)			
C3S20 (I3)	C697 (I1)		W288 (I1)	Q702 (F0)			
C3S21 (I3)	C698 (D0)		ZD1P01 (A2)	Q703 (F0)			
C3S22 (H3)	C699 (D5)		ZD1P02 (C1)	Q704 (F0)			
C3S23 (I3)	C6B01 (E0)		ZD1P03 (B2)	Q705 (F0)			
C3S25 (J3)	C6B02 (E0)		ZD1P06 (C2)	Q706 (G0)			
C3S26 (J4)	C6B03 (E0)		ZD1SF1 (A3)	Q802 (J6)			
C3S27 (J3)	C6B04 (E0)		ZD1SF2 (B4)	Q803 (J6)			
C402 (K7)	C6P01 (B7)		ZD1SS1 (C4)	Q804 (J6)			
C403 (K6)	C6P02 (C7)		ZD401 (K6)				
C404 (I1)	C6P03 (C7)		ZD801 (K7)				
C405 (K5)	C6P04 (B7)						
C407 (K7)	C6P05 (B7)						
C410 (K7)	C6P06 (D7)						
C411 (H4)	C6P07 (C7)						
C501 (I5)	C6P08 (C7)						
C502 (I5)	C6P09 (B8)						
C503 (I5)	C6P10 (C8)						
C504 (I6)	C6P11 (B8)						
C505 (I6)	C6P12 (C7)						
C506 (H6)	C6P13 (C7)						
C507 (H6)	C6P14 (B7)						
C508 (H6)	C6P15 (B7)						
C509 (I6)	C6P20 (C7)						
C510 (H6)	C731 (K4)						
C511 (H6)	C801 (E7)						
C512 (H6)	C802 (F7)						
C513 (H6)	C803 (F7)						
C514 (H5)	C804 (F7)						
C515 (H5)	C805 (E7)						
C516 (H4)	C806 (J6)						

## 9-2 Function-Timer (With AV-Link)

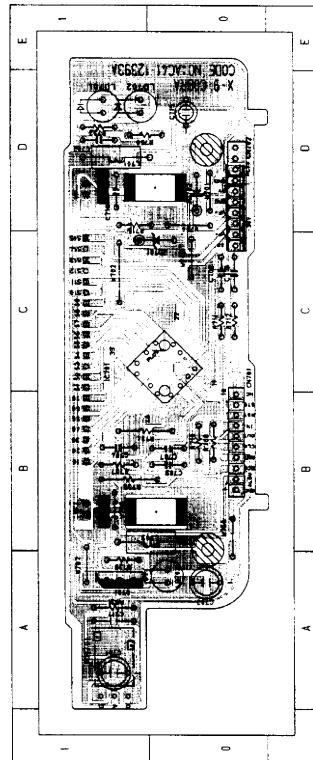
DOUBLE-SIDED PCB



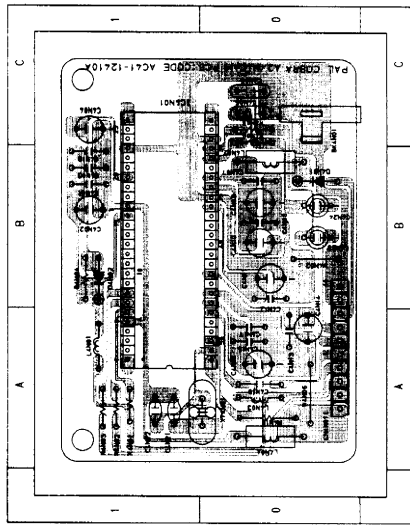
ONE-SIDED PCB



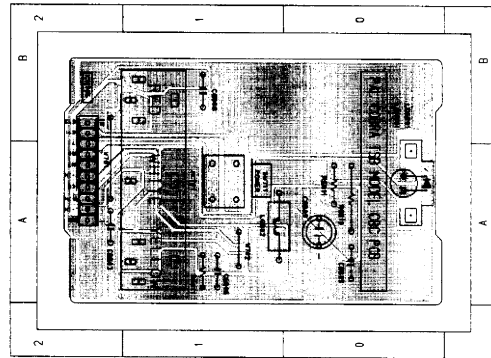
## 9-3 Function-Timer (Without AV-Link)



## 9-4 NICAM



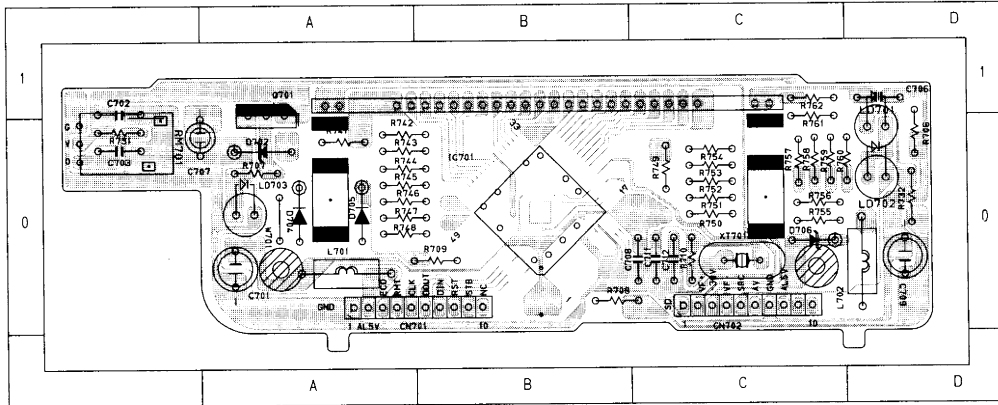
## 9-5 Front Jack/CBC



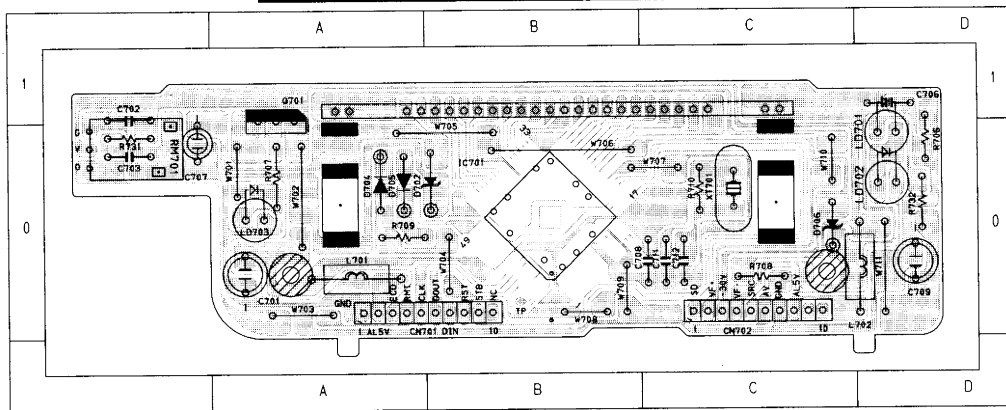
## 9-2 Function-Timer (With AV-Link)

**Application Models : V-729B/V-429B/V-229B/V-219B/V-729EG/V-429EG  
V-729F/V-429F/V-229F**

### DOUBLE-SIDED PCB

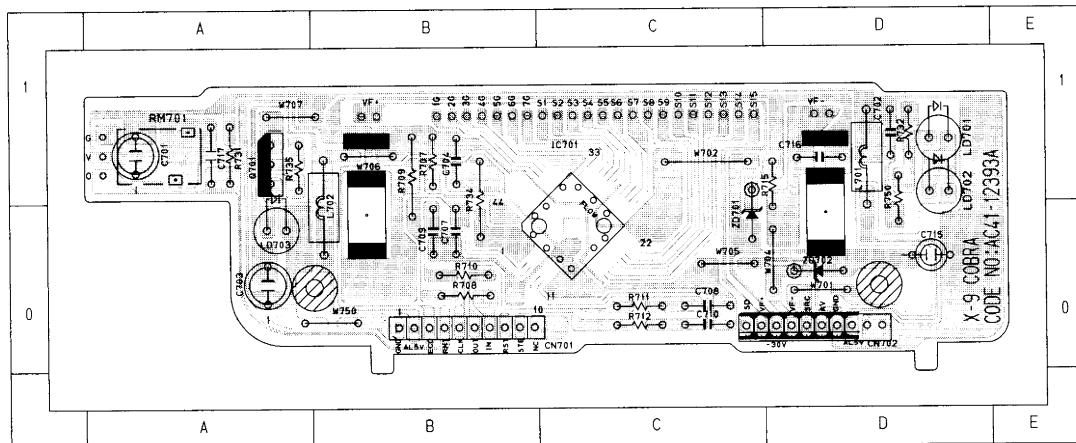


### ONE-SIDED PCB



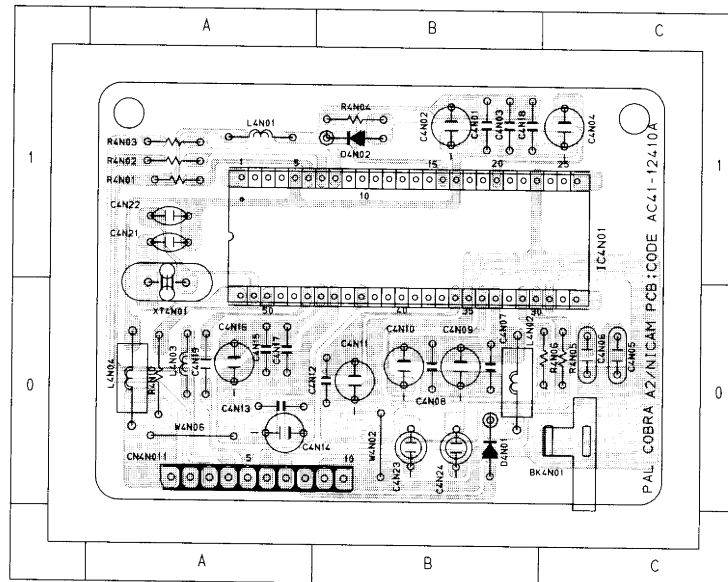
## 9-3 Function-Timer (Without AV-Link)

**Application Models : V-709B/V-209UK/V-719EG/V-229EG/V-219EG/V-209EG  
V-609F/V-419F/V-219F/V-729W/V-429W/V-209W**



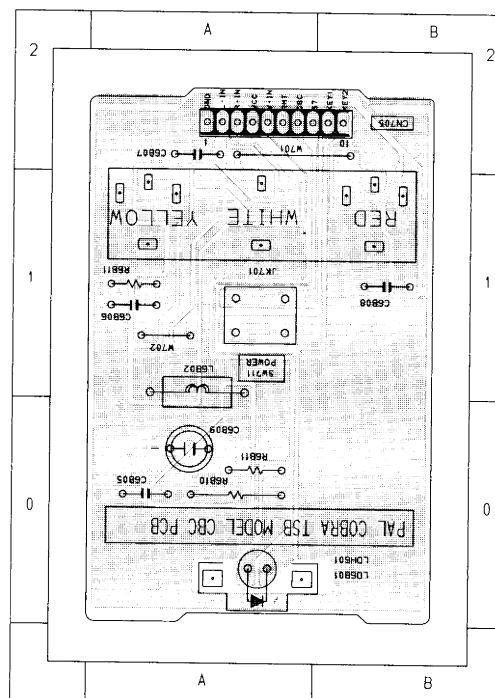
## 9-4 NICAM

**Application Models : V-729B/V-709B/V-729EG/V-719EG/V-729F/V-609F/V-729W**



## 9-5 Front Jack/CBC

**Application Models : V-729B/V-429B/V-229B/V-219B/V-729EG/V-429EG  
V-729F/V-429F/V-229F**



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## 10. Schematic Diagrams

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◆ Block Identification of Main PCB	10-2
10-1 S.M.P.S.	10-3
10-2 Power Drive	10-4
10-3 System Control/Servo	10-5
10-4 Audio/Video	10-6
10-5 Hi-Fi	10-7
10-6 TM-Block	10-8
10-7 SECAM	10-9
10-8 A2/NICAM	10-10
10-9 Input-Output	10-11
10-10 OSD/VPS/PDC	10-12
10-11 OSD (Without VPS/PDC)	10-13
10-12 Function-Timer (With AV-Link)	10-14
10-13 Function-Timer (Without AV-Link)	10-15
10-14 Remote-Control (Multi)	10-16
10-15 Remote-Control (VCR Only)	10-17

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## 10. Schematic Diagrams

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◆ Block Identification of Main PCB - - - - -	10-2
10-1 S.M.P.S. - - - - -	10-3
10-2 Power Drive - - - - -	10-4
10-3 System Control/Servo - - - - -	10-5
10-4 Audio/Video - - - - -	10-6
10-5 Hi-Fi - - - - -	10-7
10-6 TM-Block - - - - -	10-8
10-7 SECAM - - - - -	10-9
10-8 A2/NICAM - - - - -	10-10
10-9 Input-Output - - - - -	10-11
10-10 OSD/VPS/PDC - - - - -	10-12
10-11 OSD (Without VPS/PDC) - - - - -	10-13
10-12 Function-Timer (With AV-Link) - - - - -	10-14
10-13 Function-Timer (Without AV-Link) - - - - -	10-15
10-14 Remote-Control (Multi) - - - - -	10-16
10-15 Remote-Control (VCR Only) - - - - -	10-17

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- 10-2

- 10-3

- 10-4

- 10-5

- 10-6

- 10-7

- 10-8

- 10-9

- 10-10

- 10-11

- 10-12

- 10-13

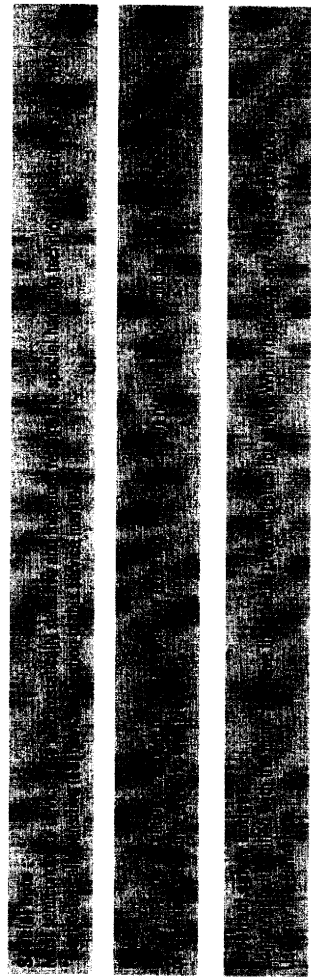
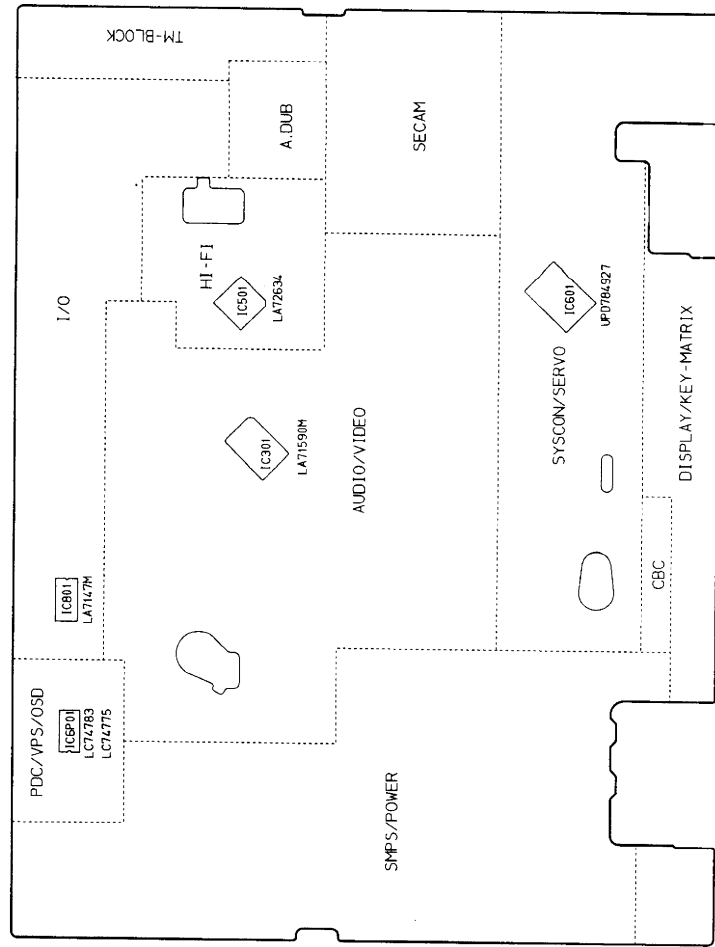
- 10-14

- 10-15

- 10-16

- 10-17

- Resistors are in ohms, 1/8W unless otherwise noted.

[illegible]

Conductor Side



## Note

For schematic Diagram  
- Resistors are in ohms, 1/8W unless otherwise noted.


### Special note :

Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

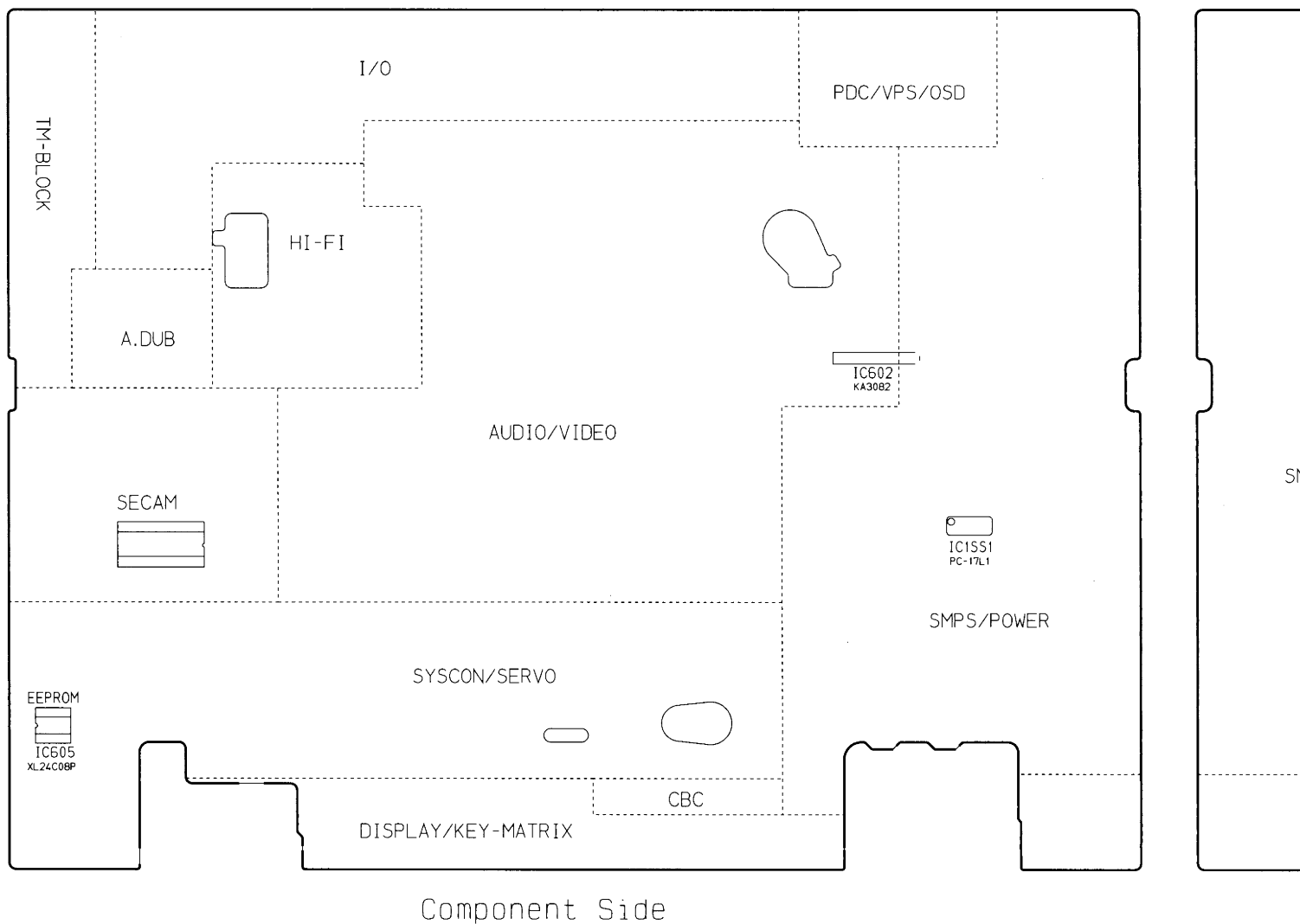
### Note :

Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

### Important safety notices :

Components identified with the mark  have the special characteristics for safety. When replacing any of these components. Use only the same type.

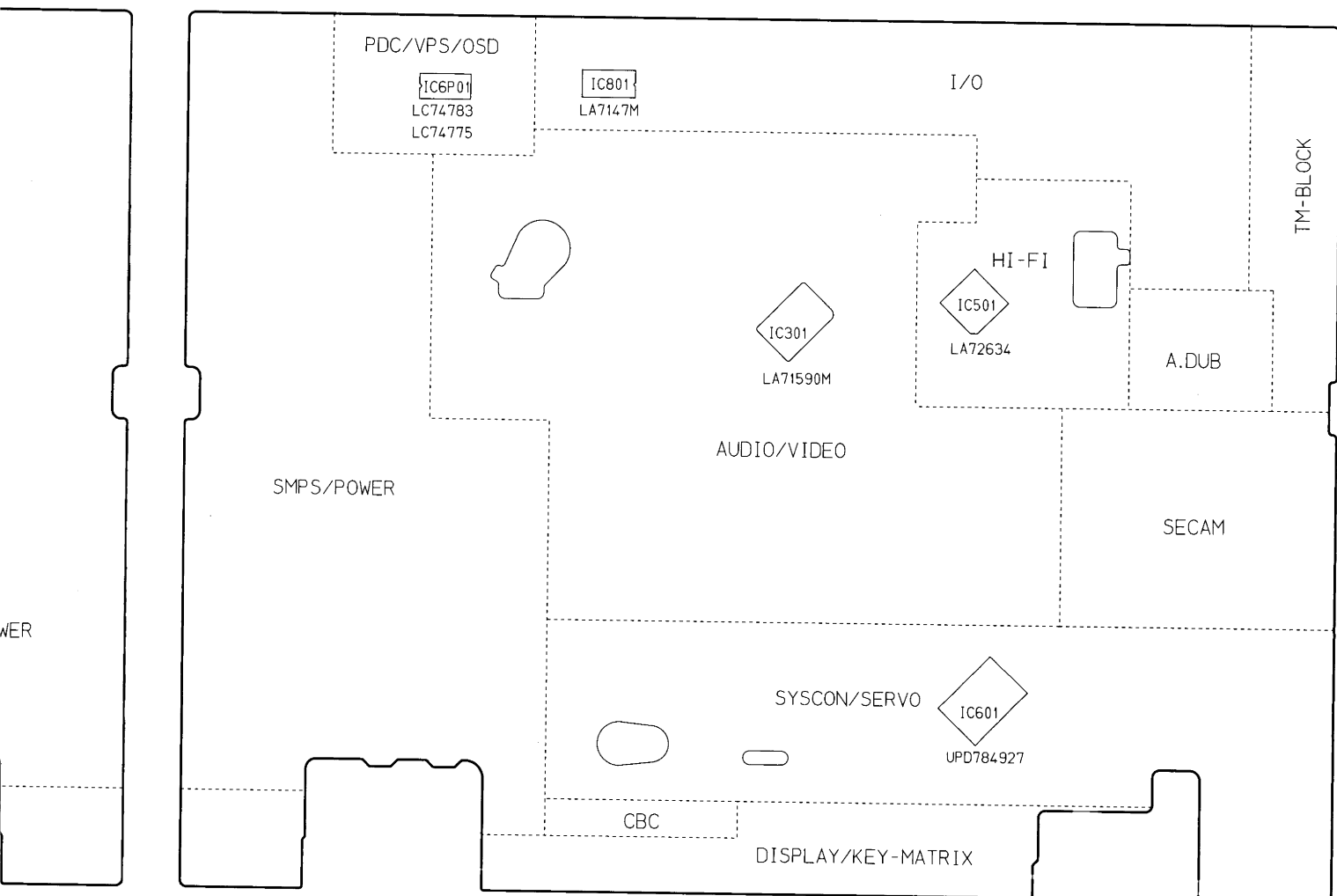
## ◆ Block Identification of Main PCB



cribed under the

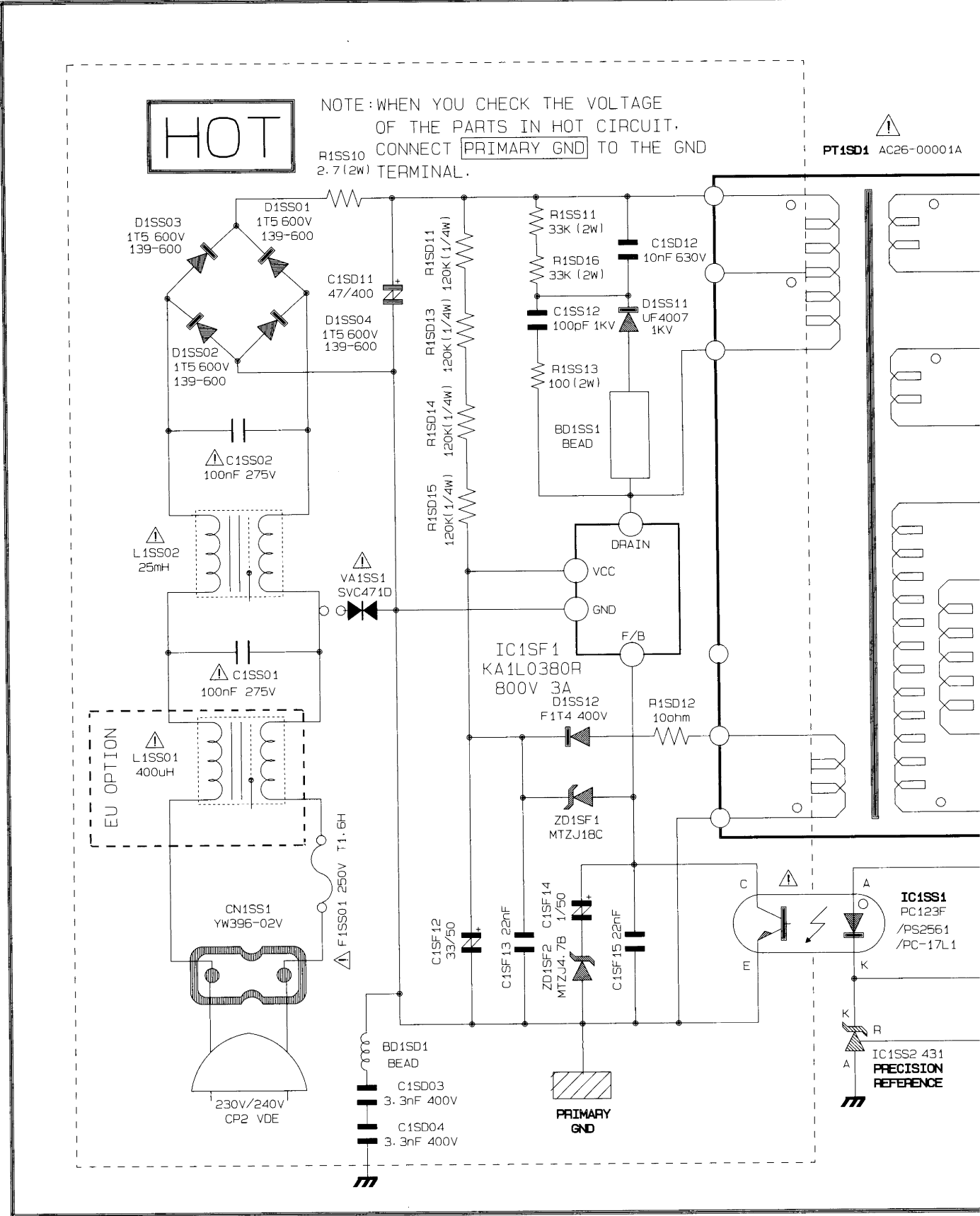
may be slightly different

ponents.




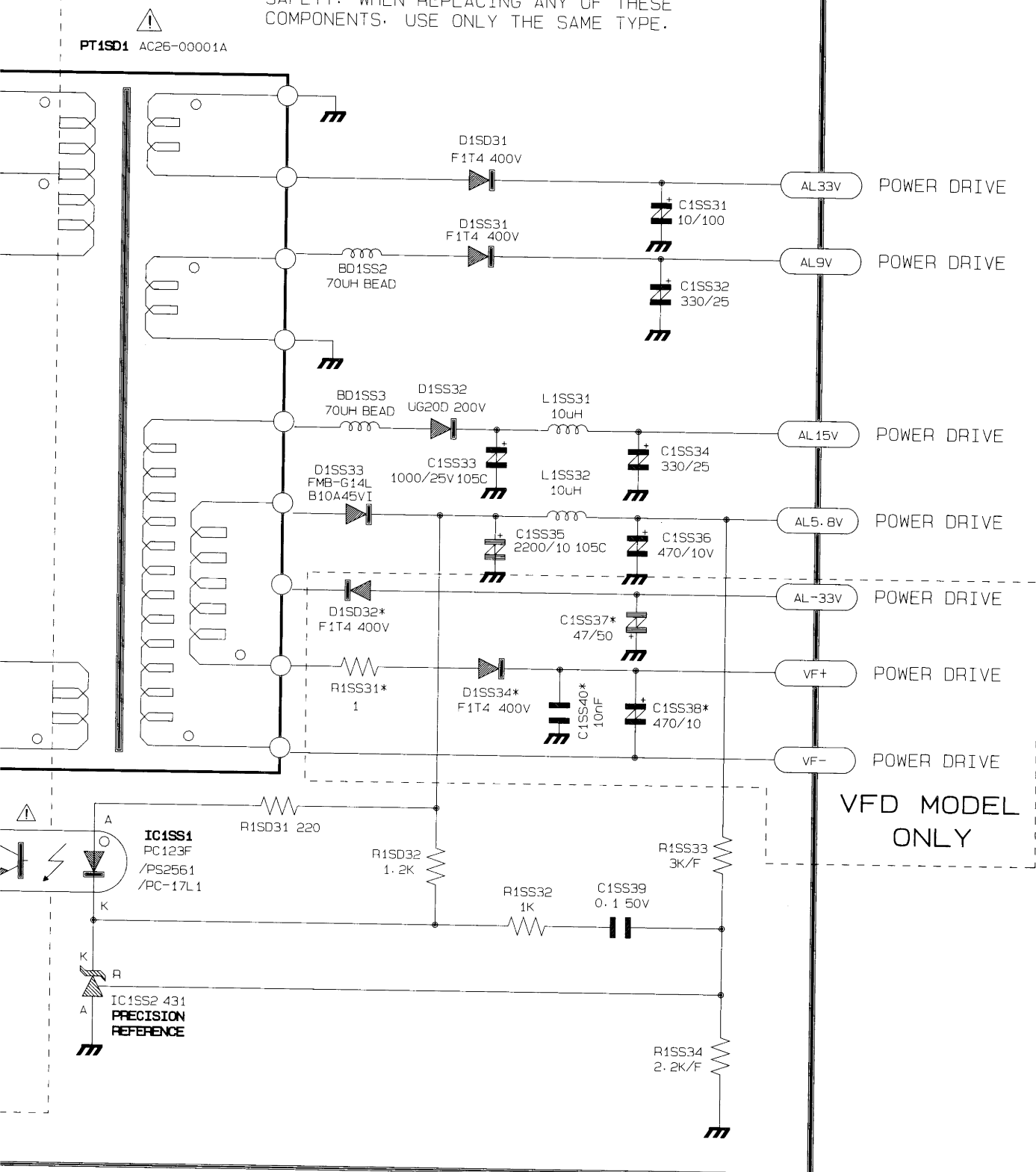
Conductor Side





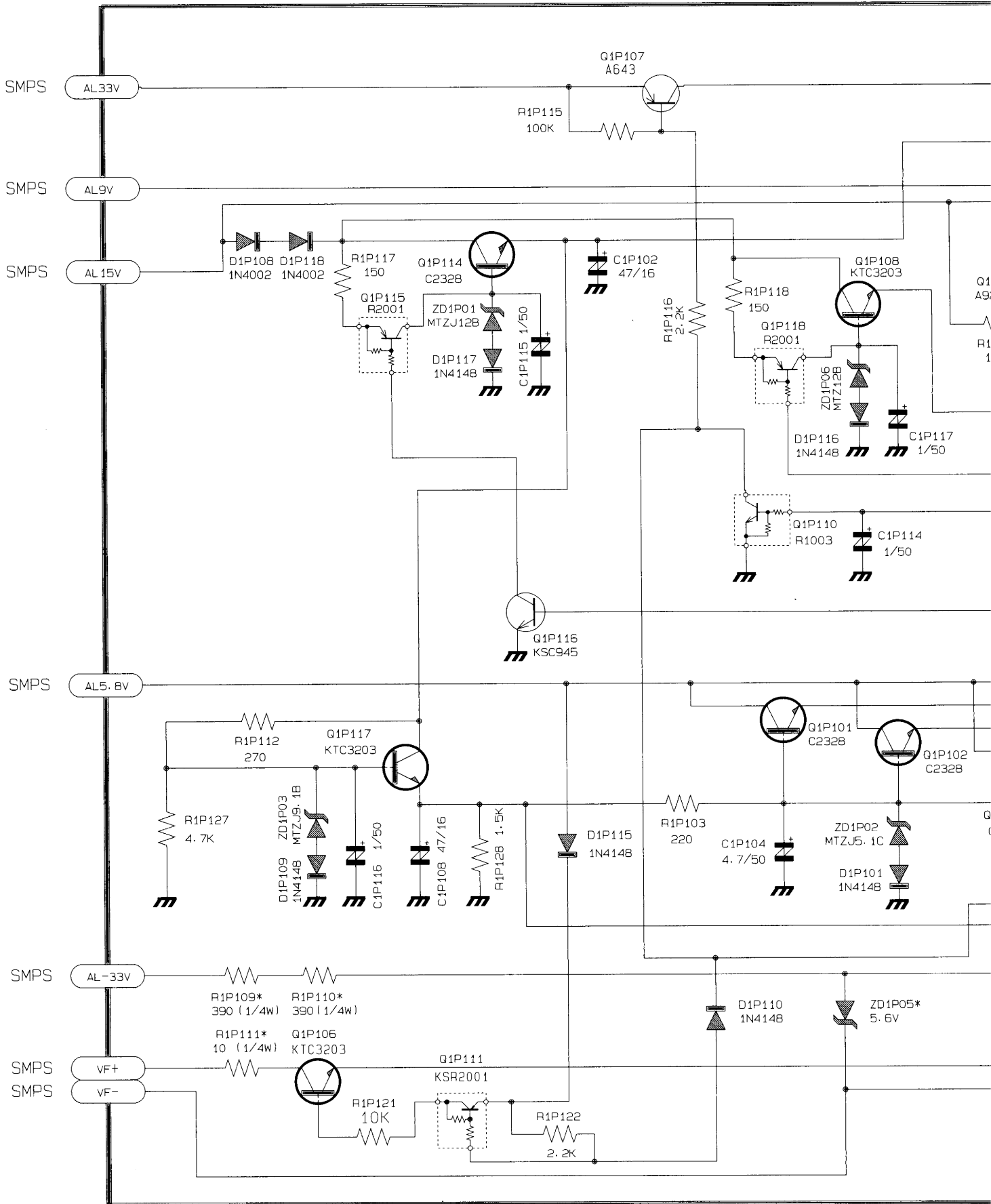
**IMPORTANT SAFETY NOTICE**

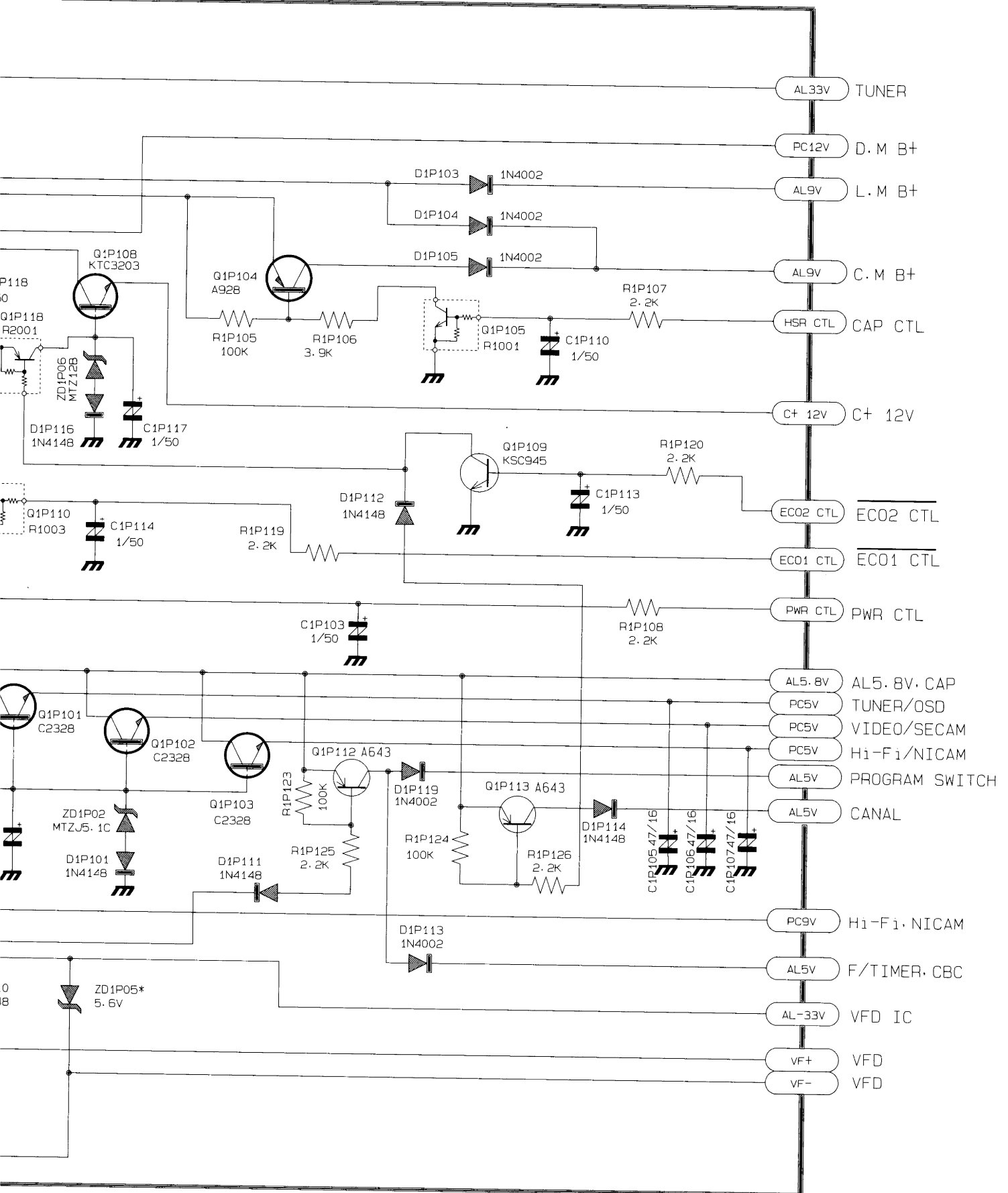
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.





## 10-2 Power Drive

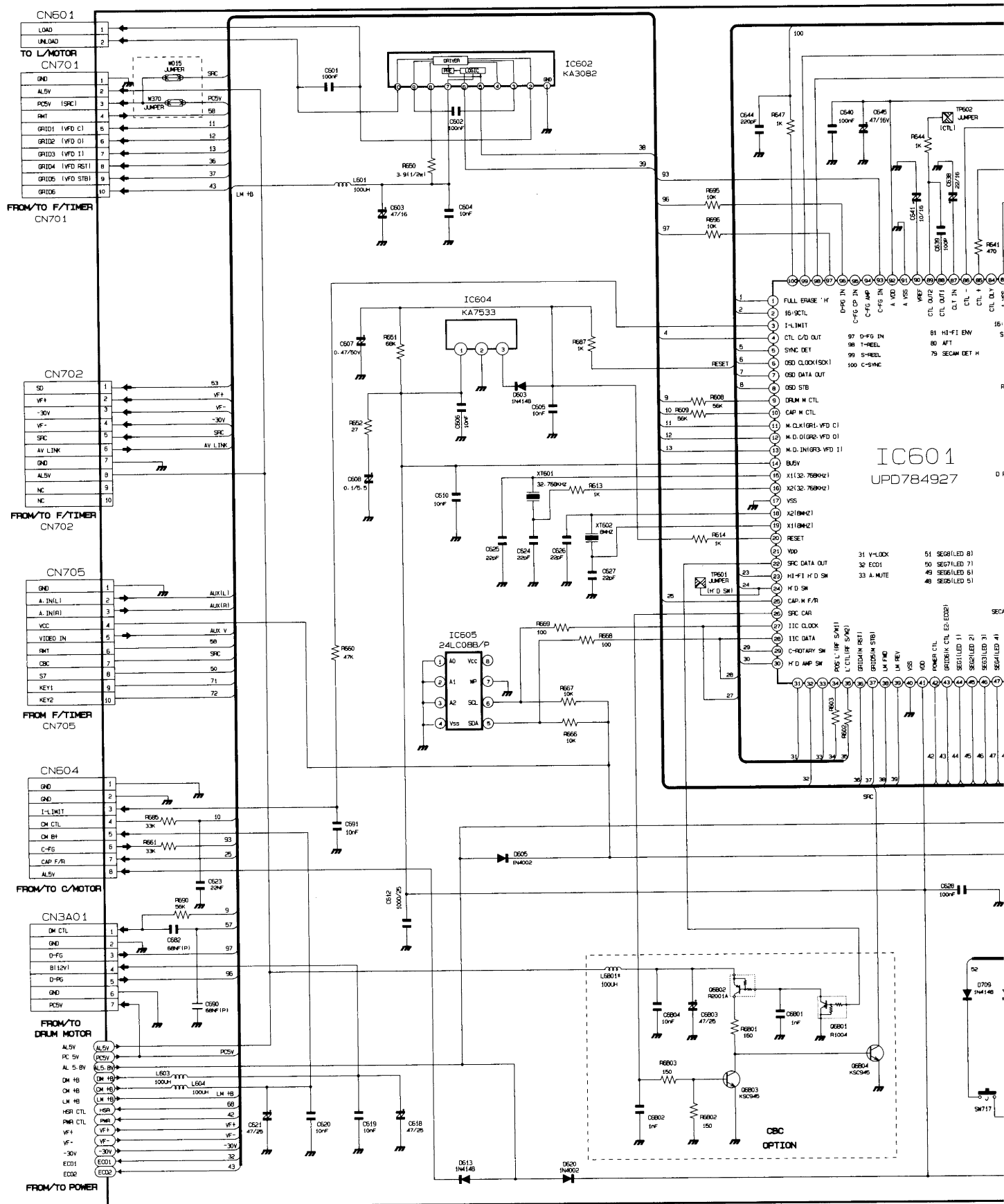


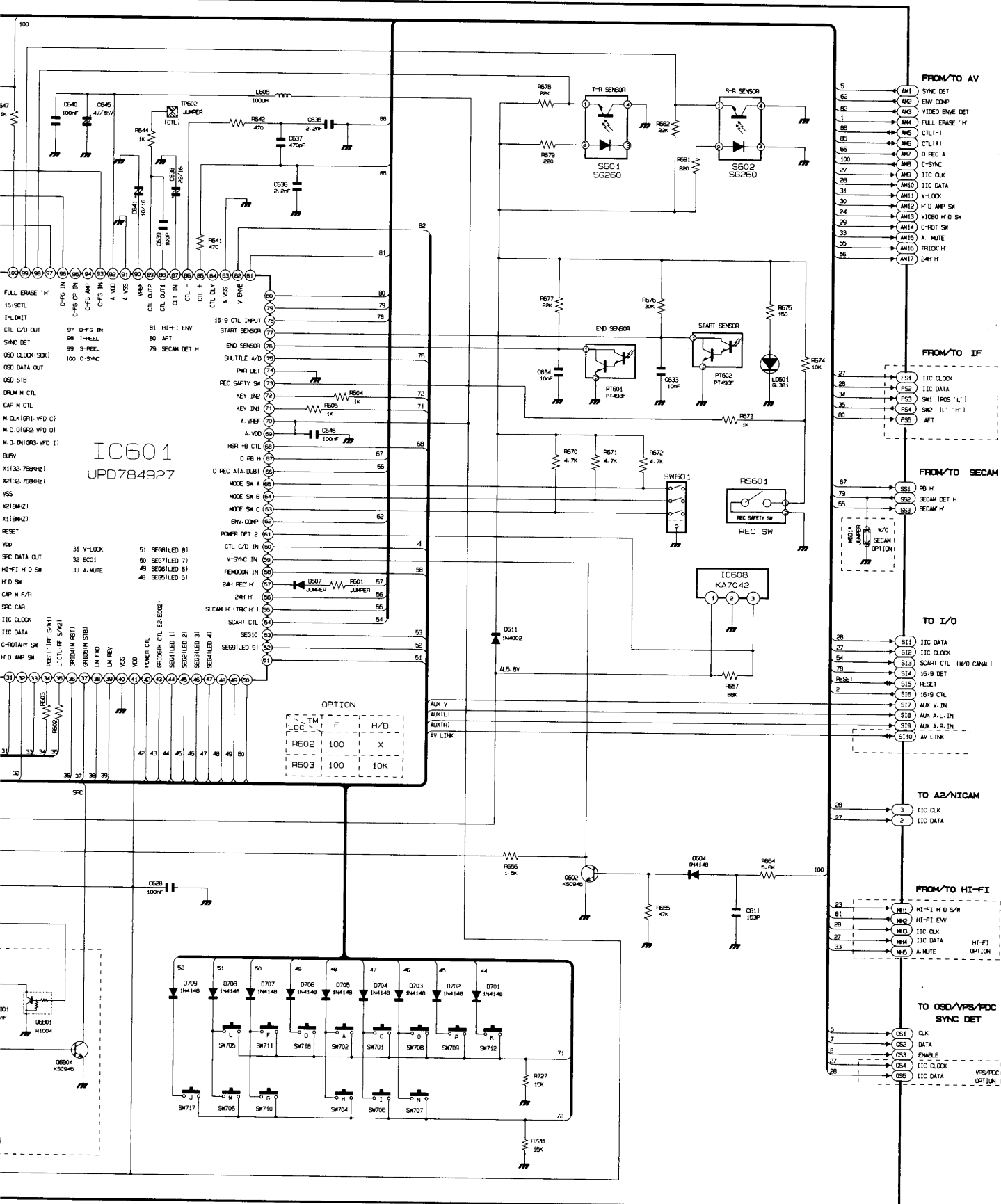






## Toshiba



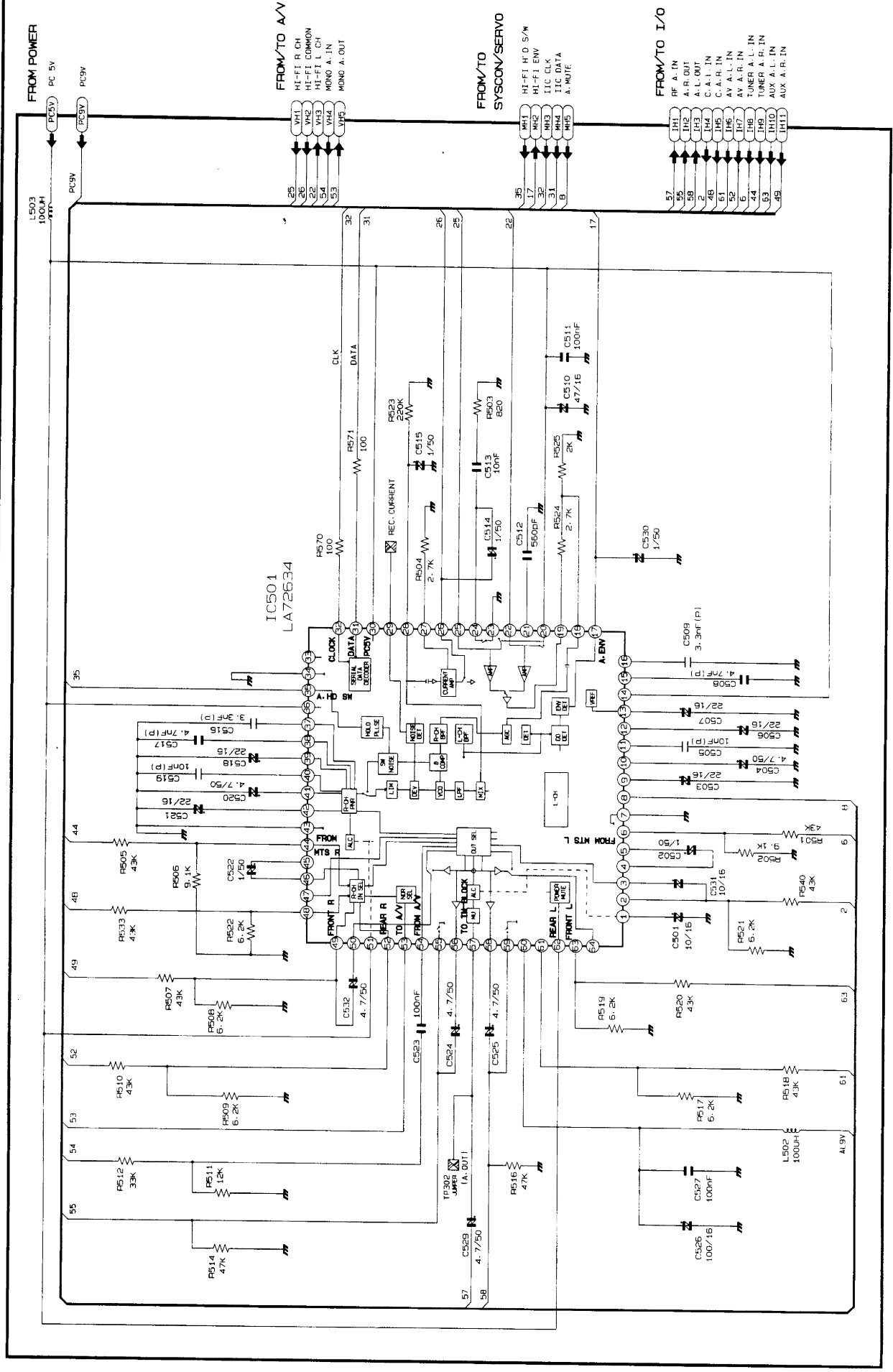


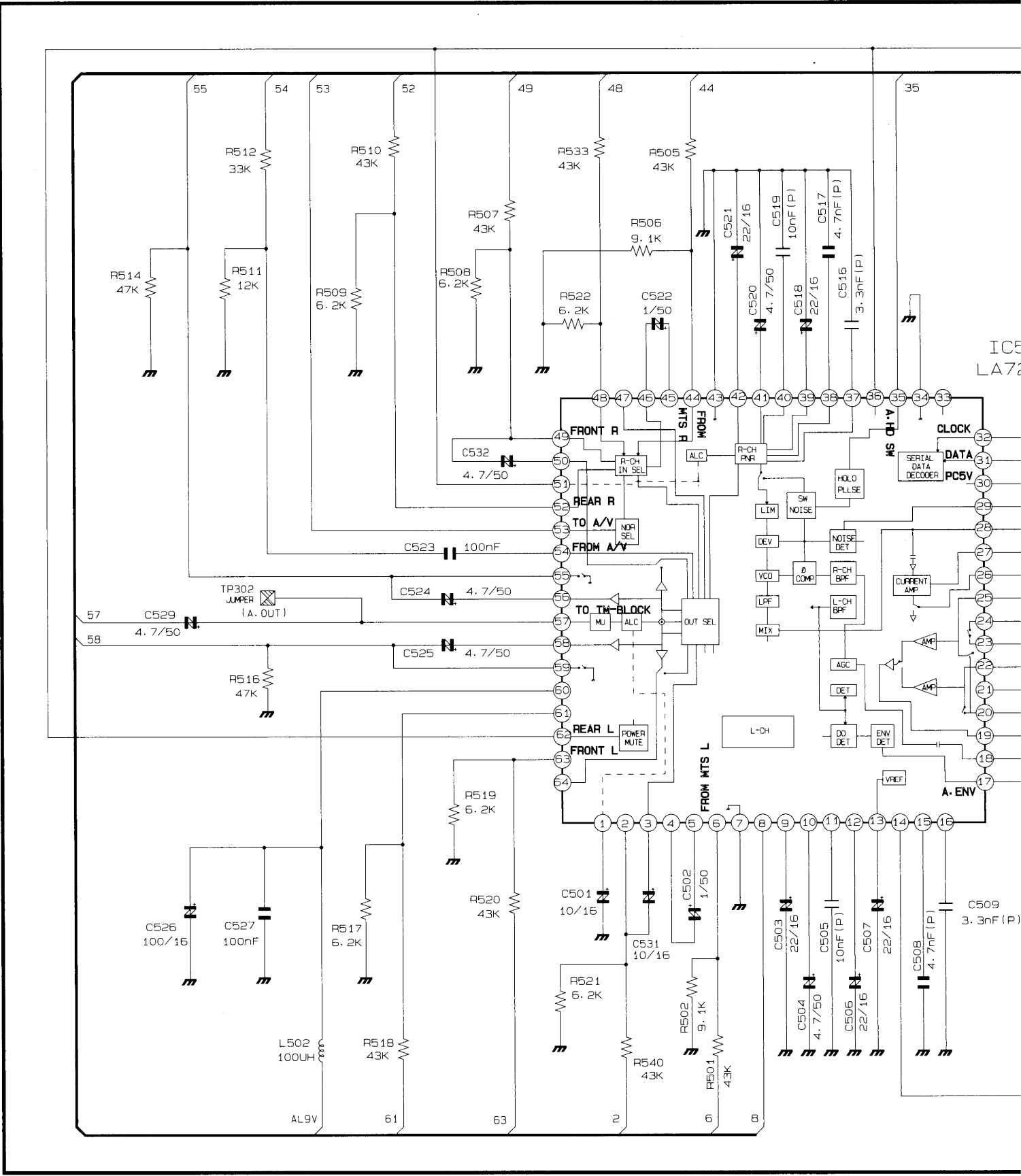




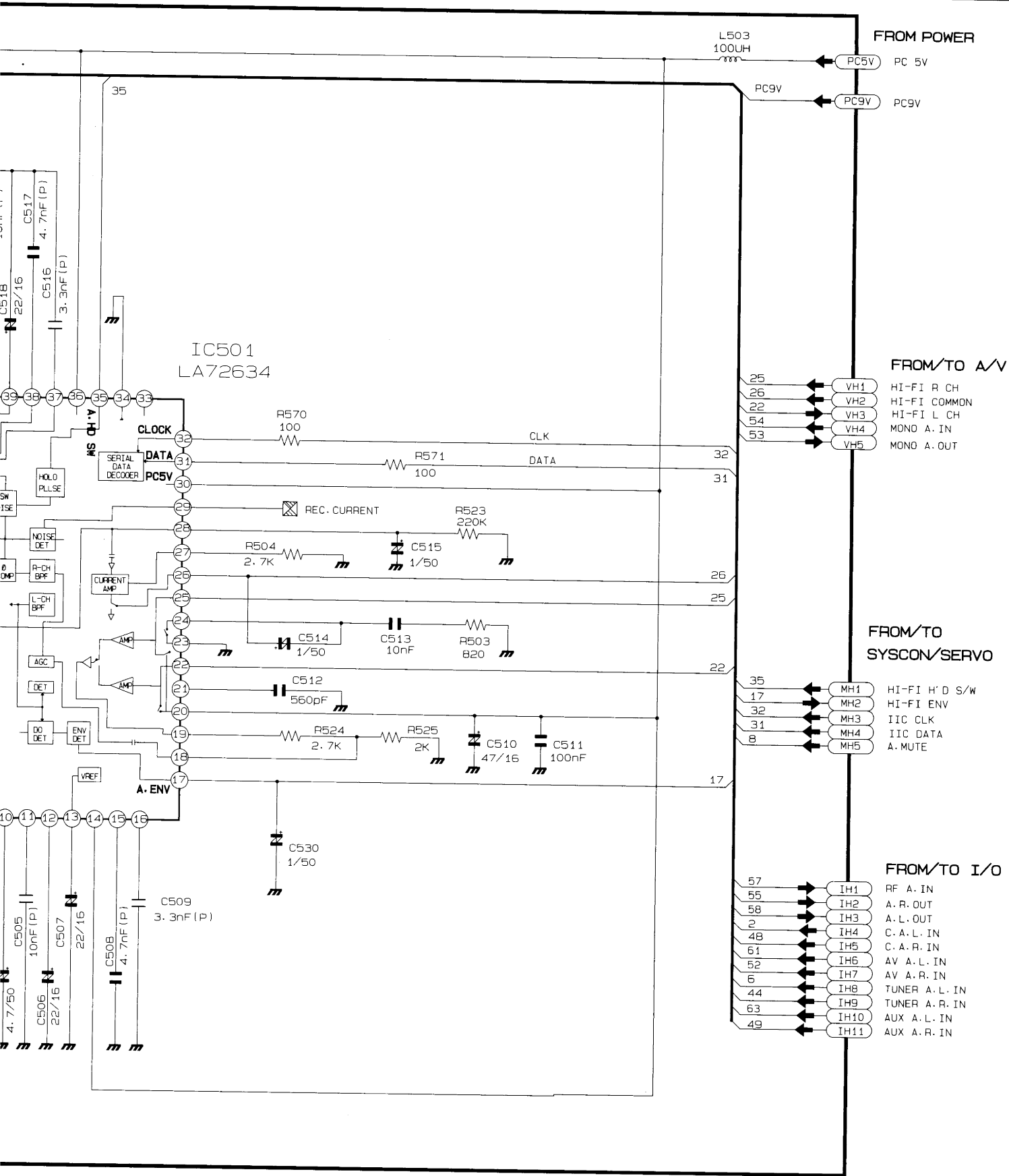


## 10-5 HI-FI

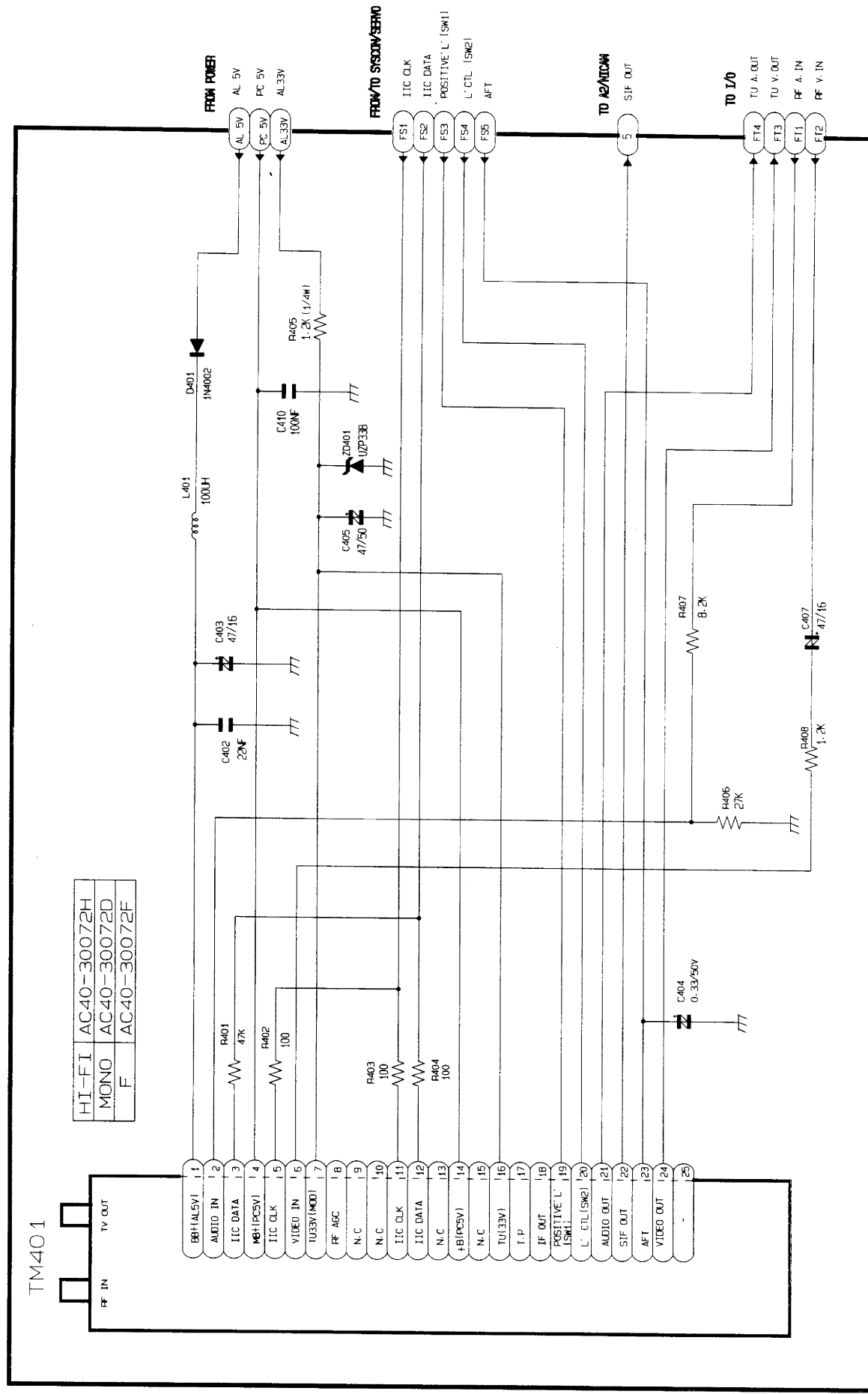




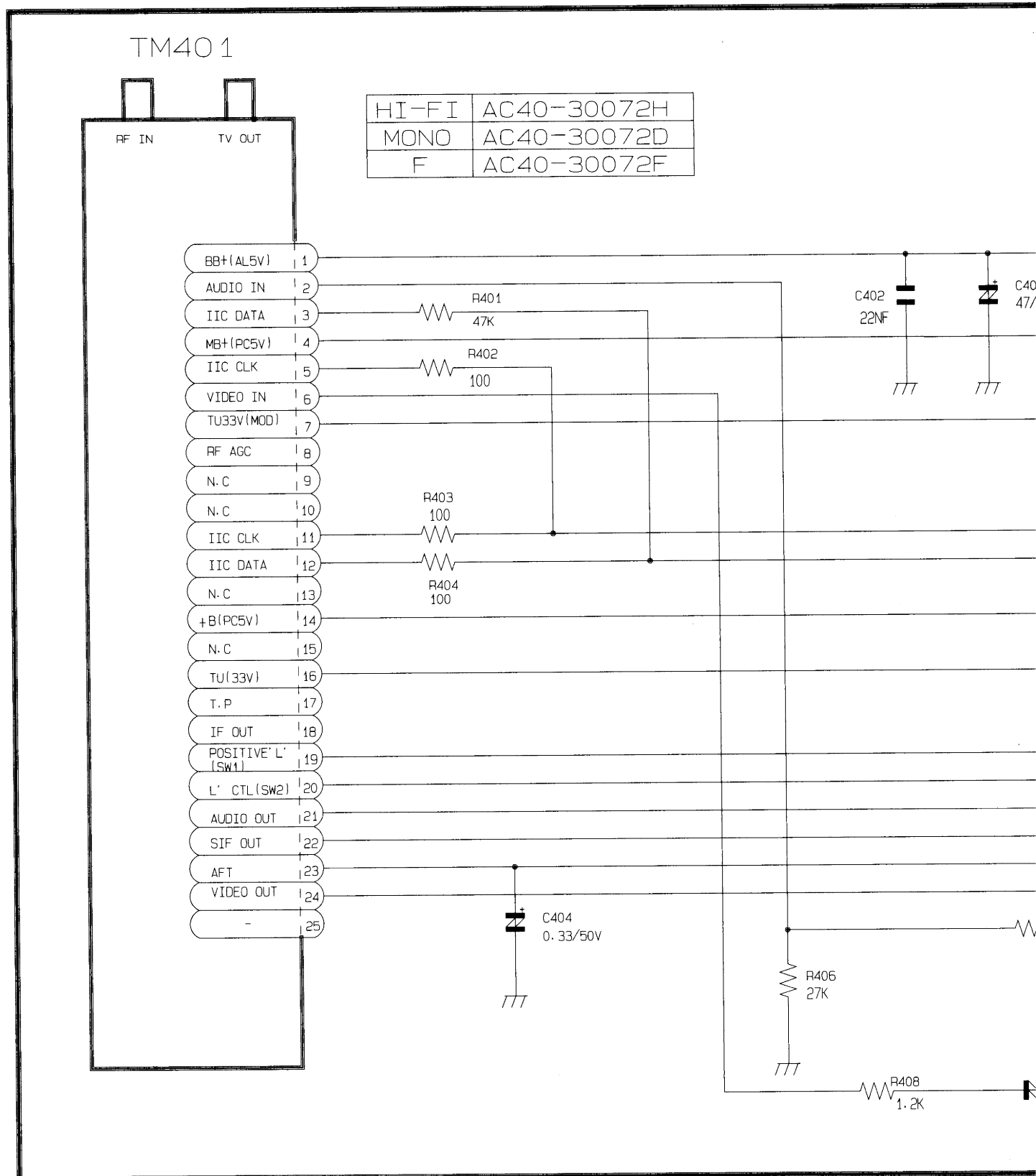


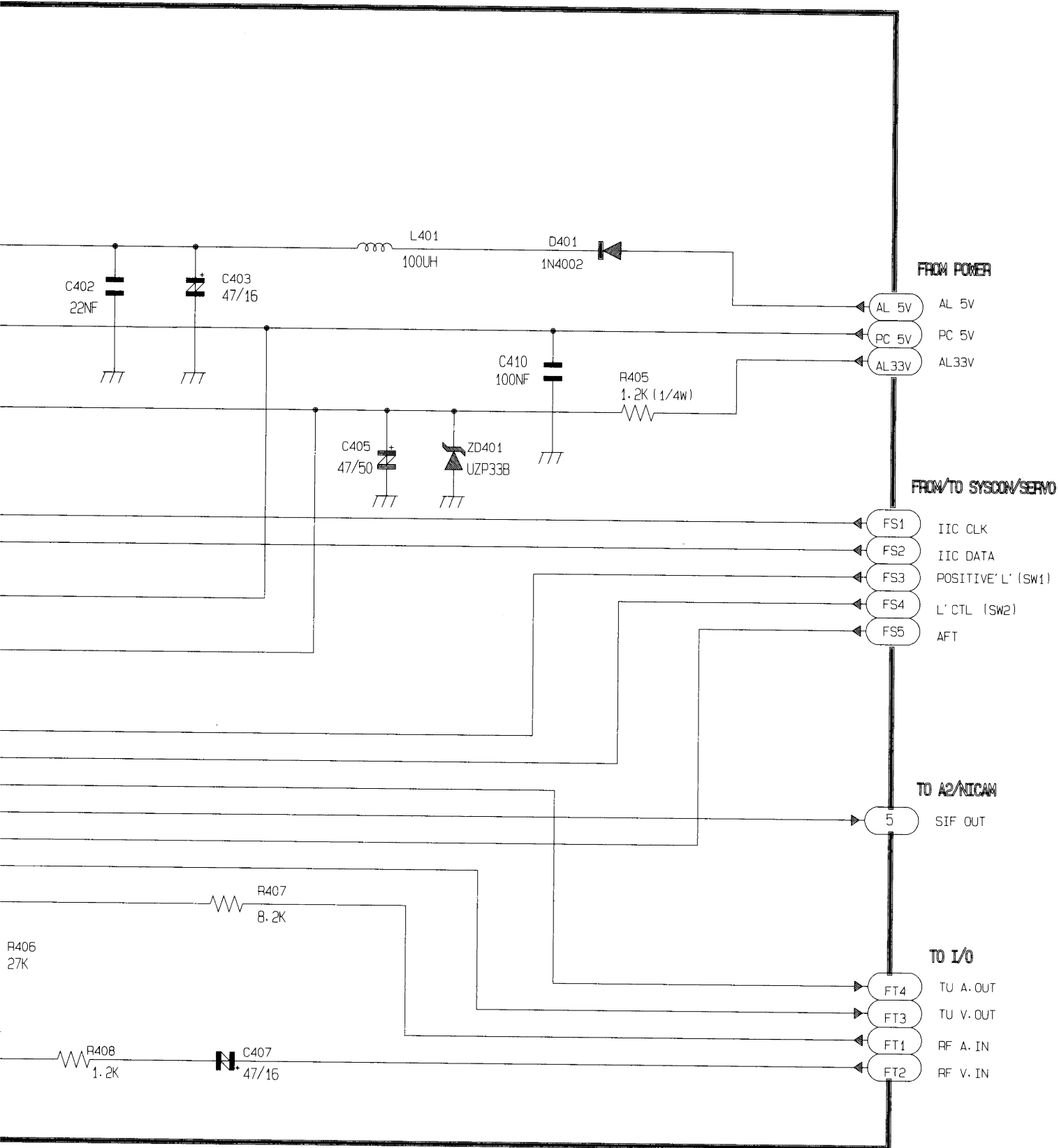


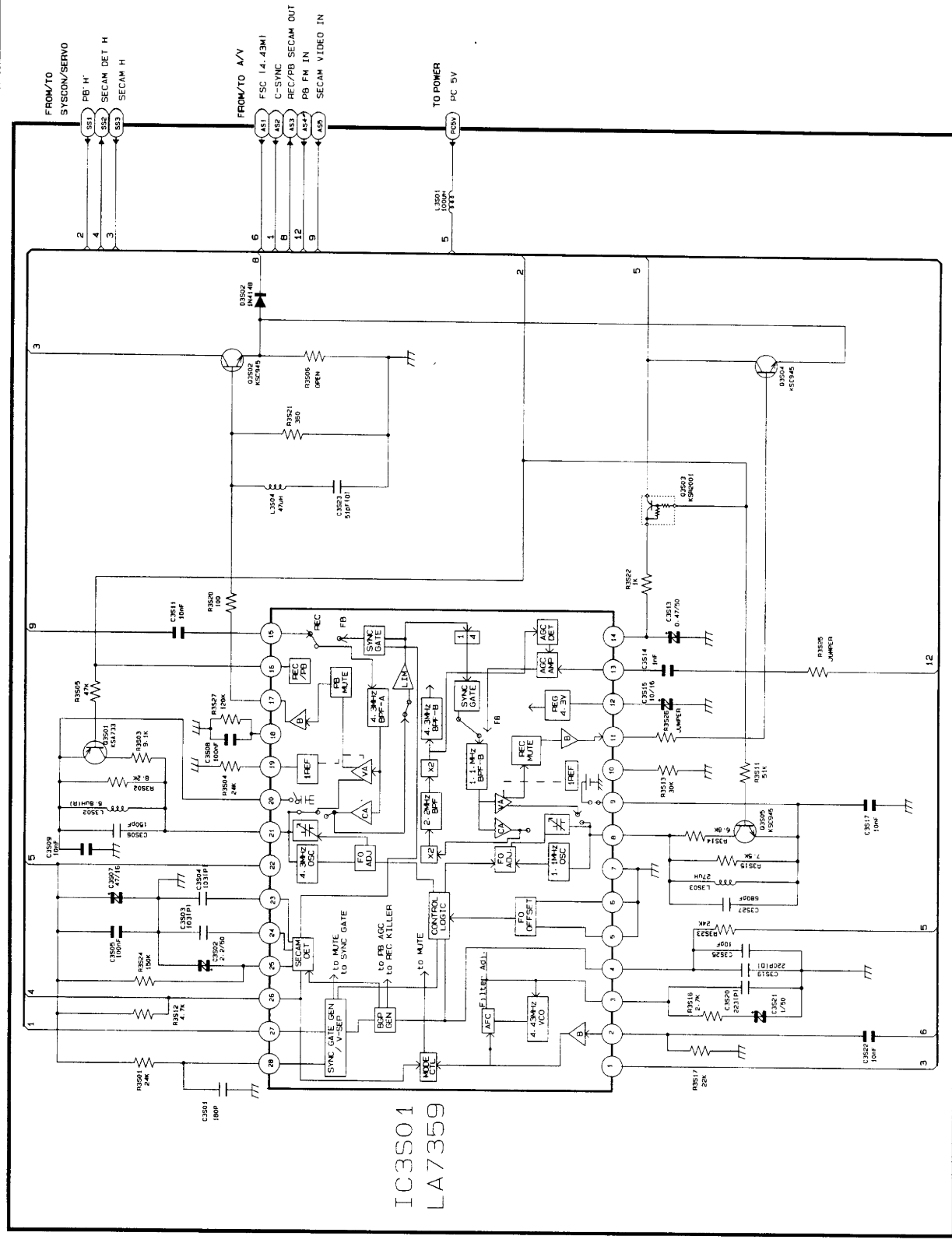
## 10-6 TM-Block



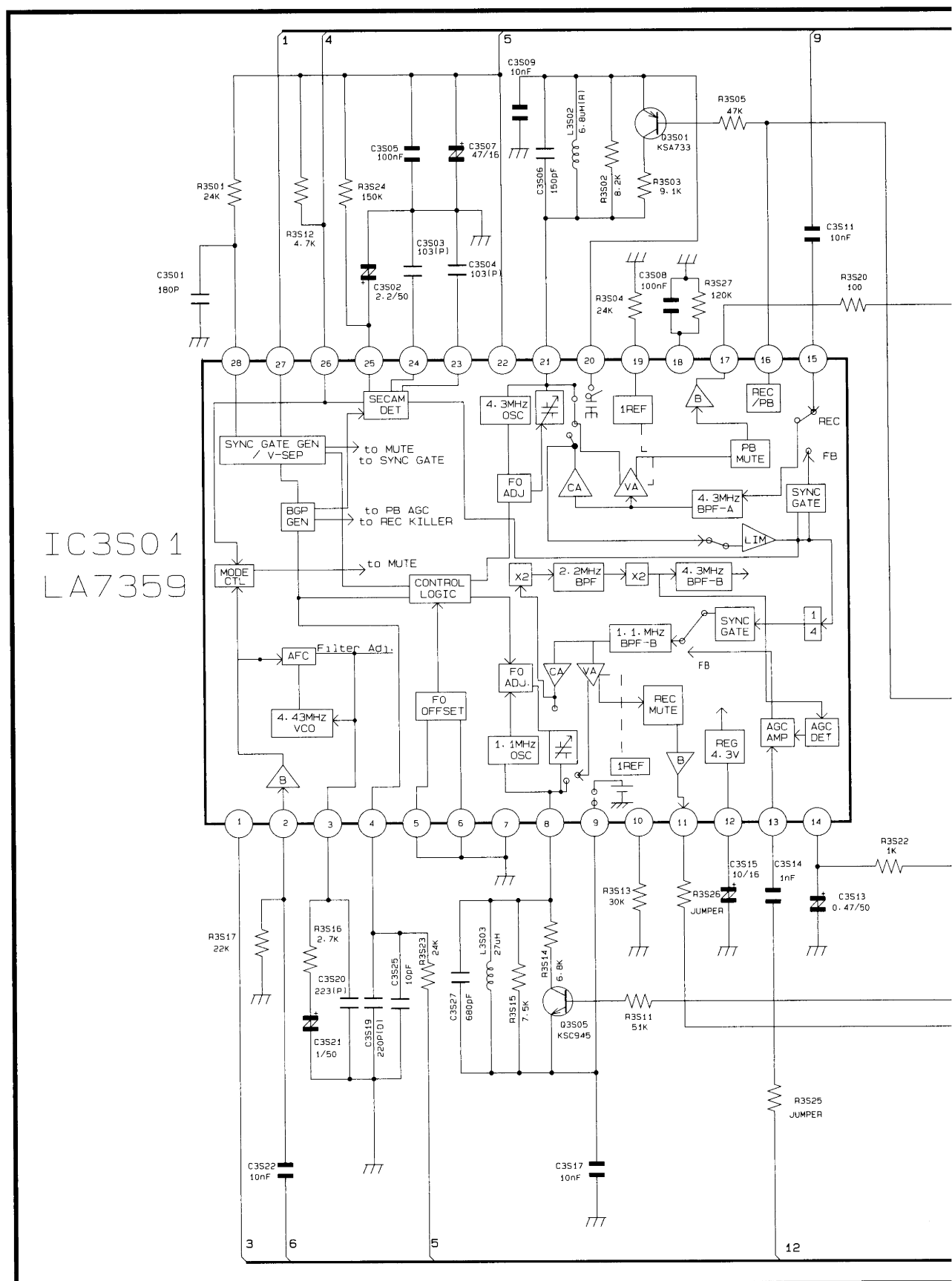
## 10-6 TM-Block

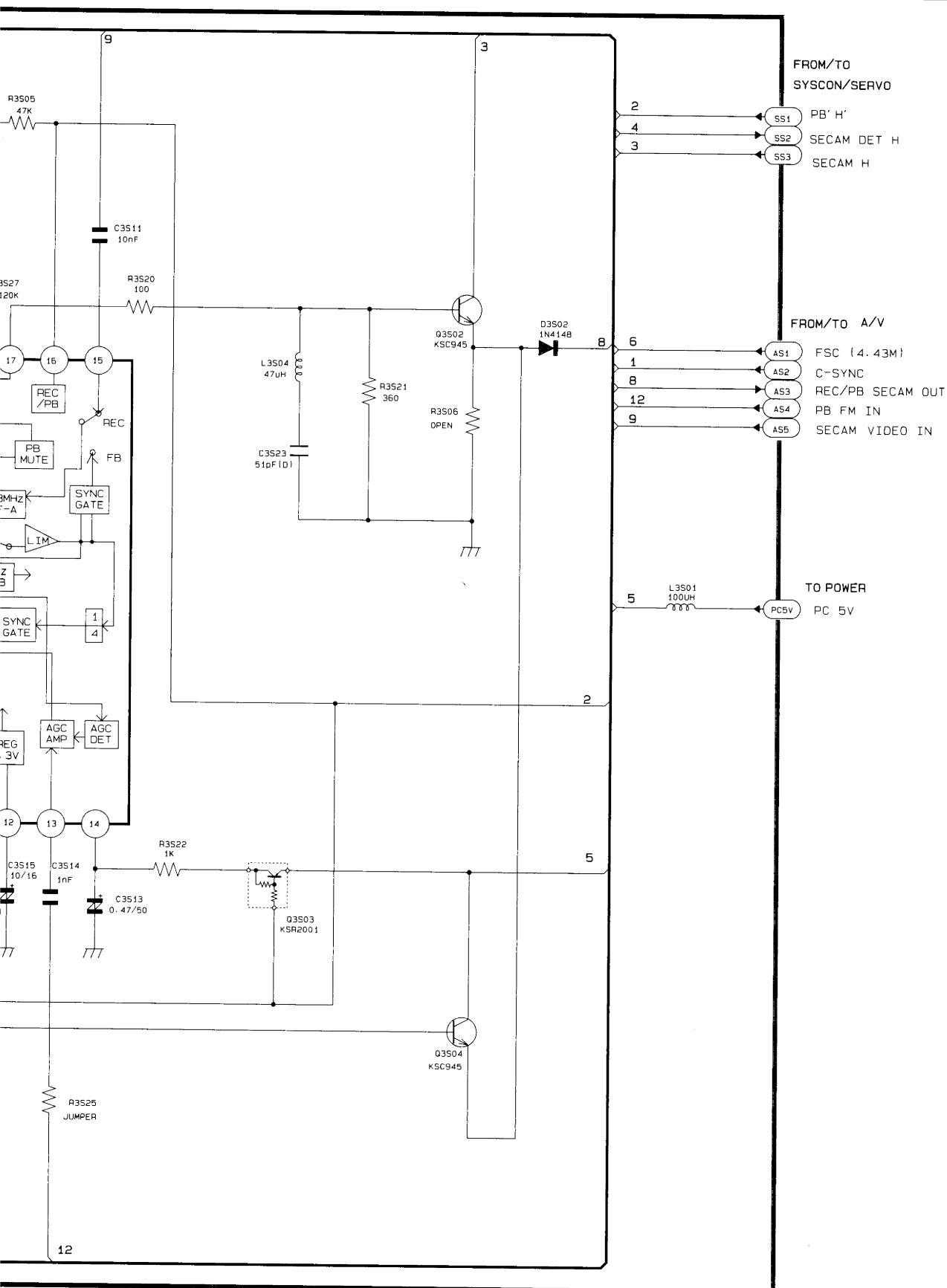




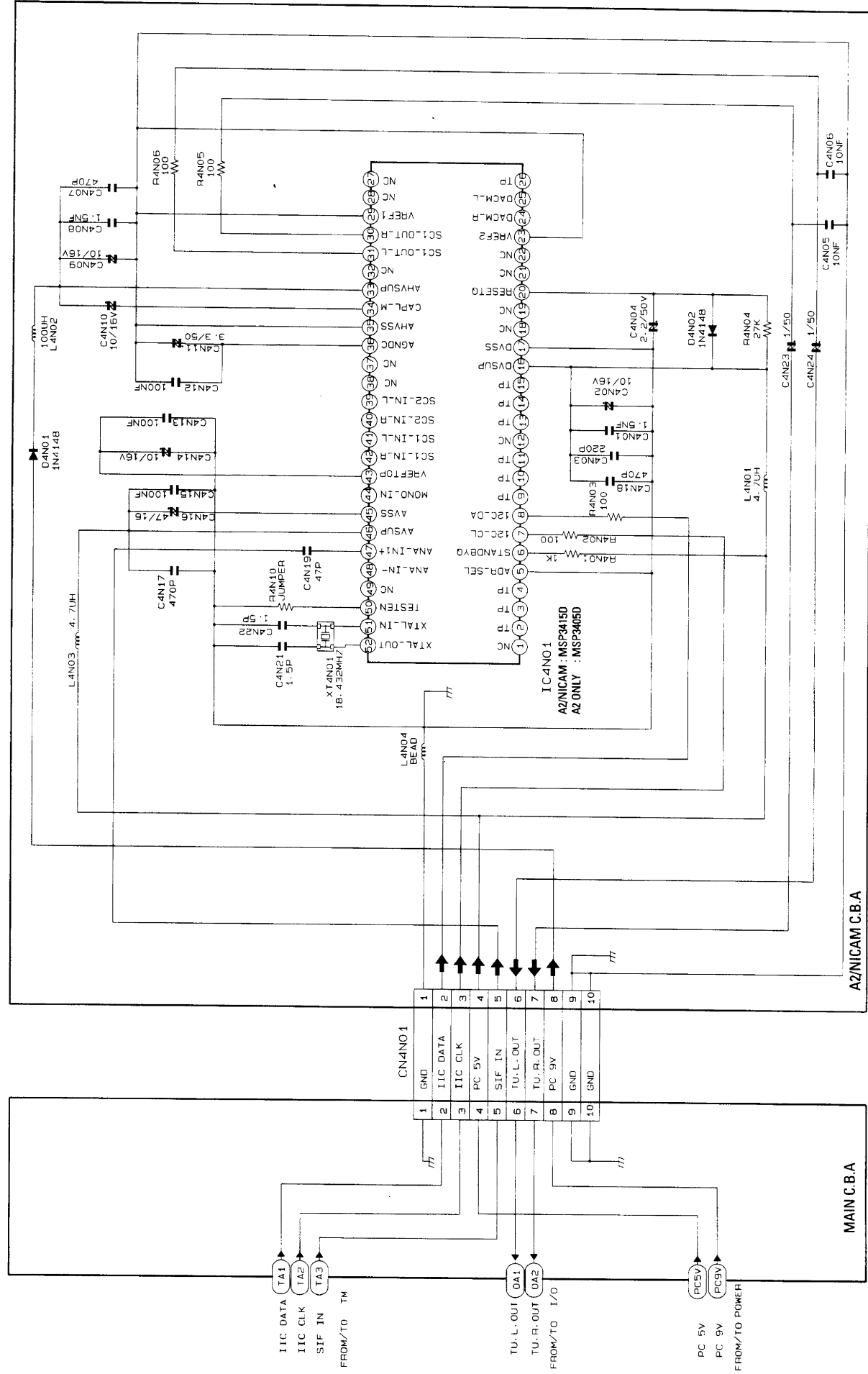


## Toshiba



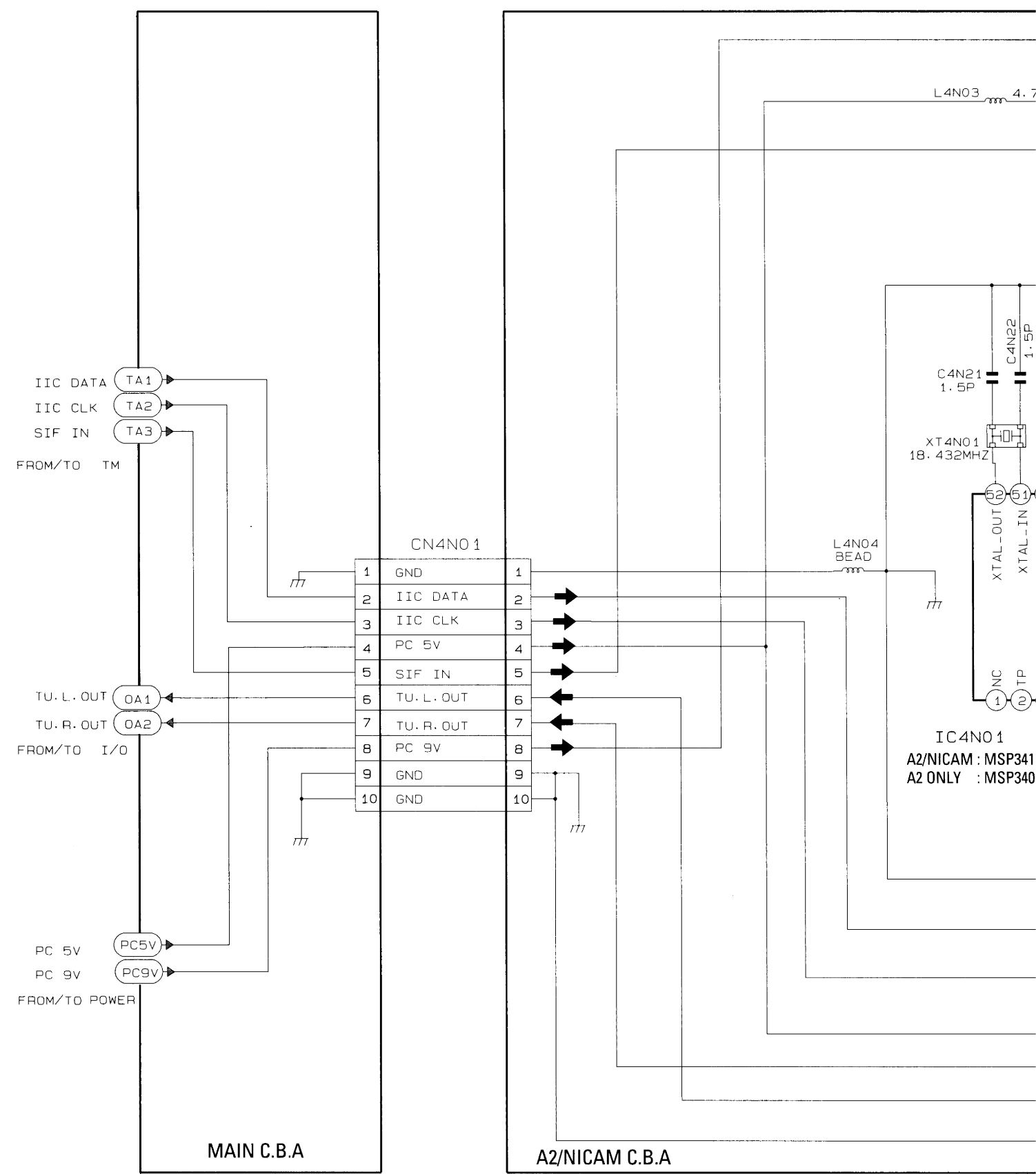


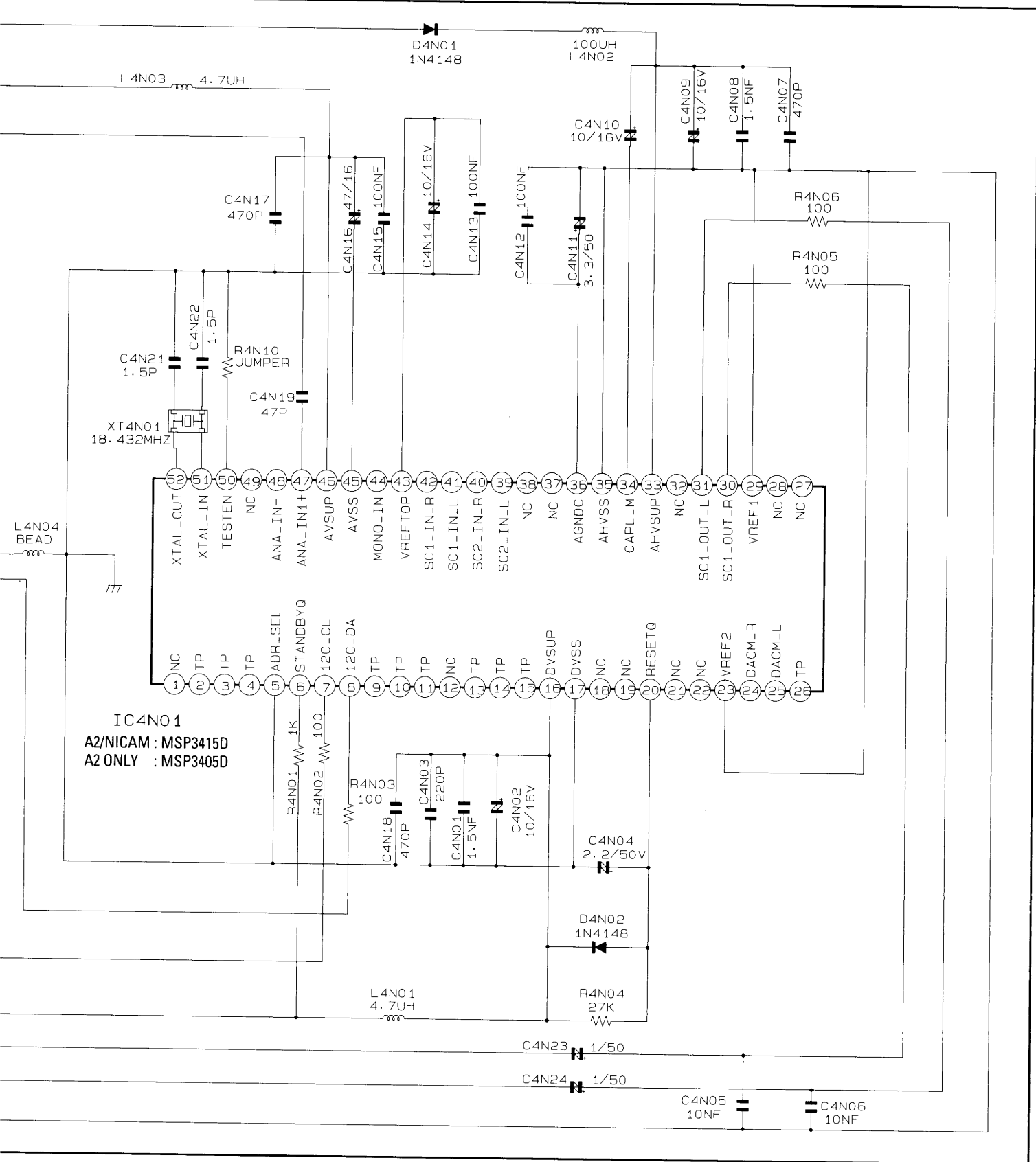
# 10-8 A2/NICAM





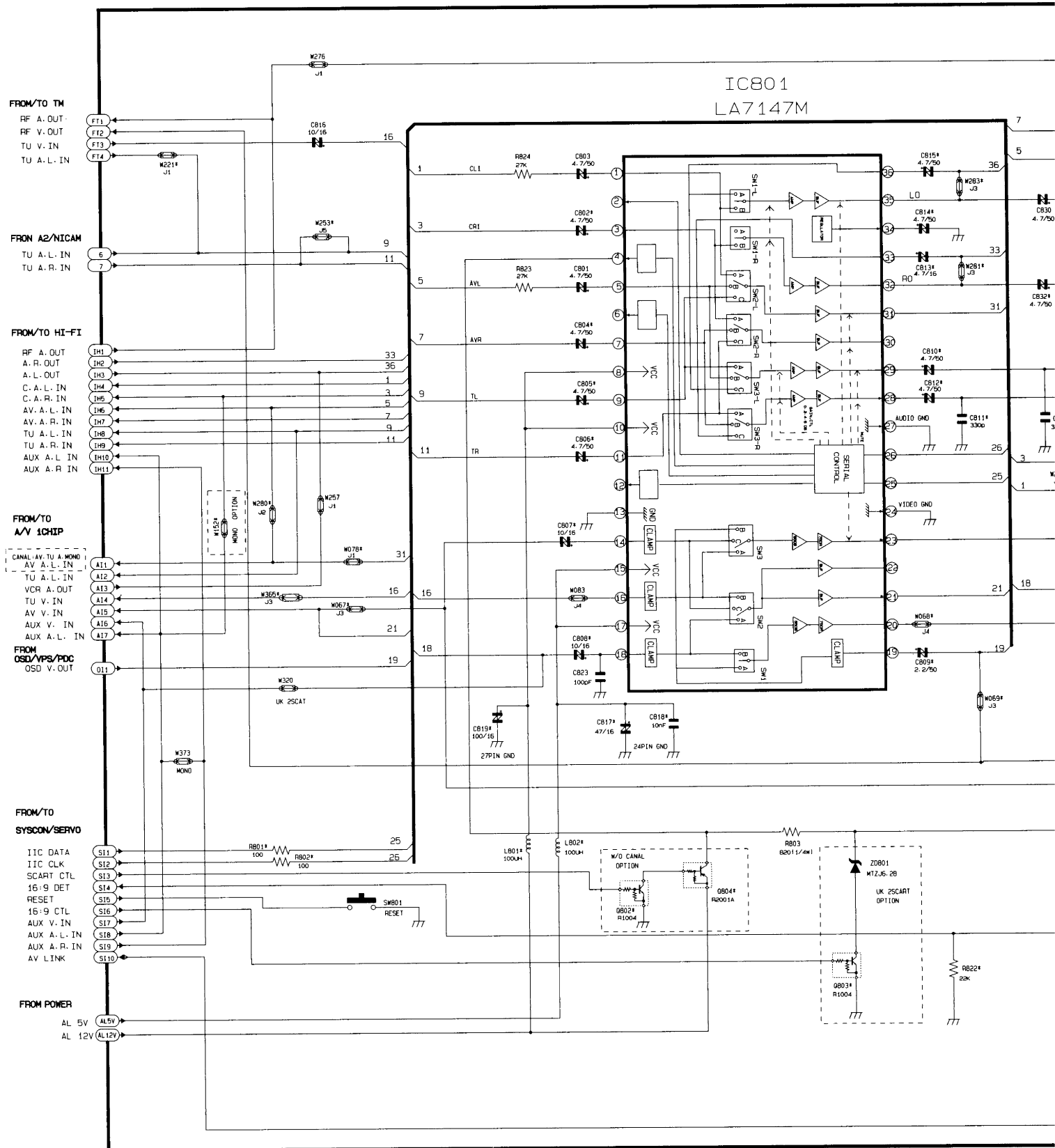
10-8 A2/NICAM

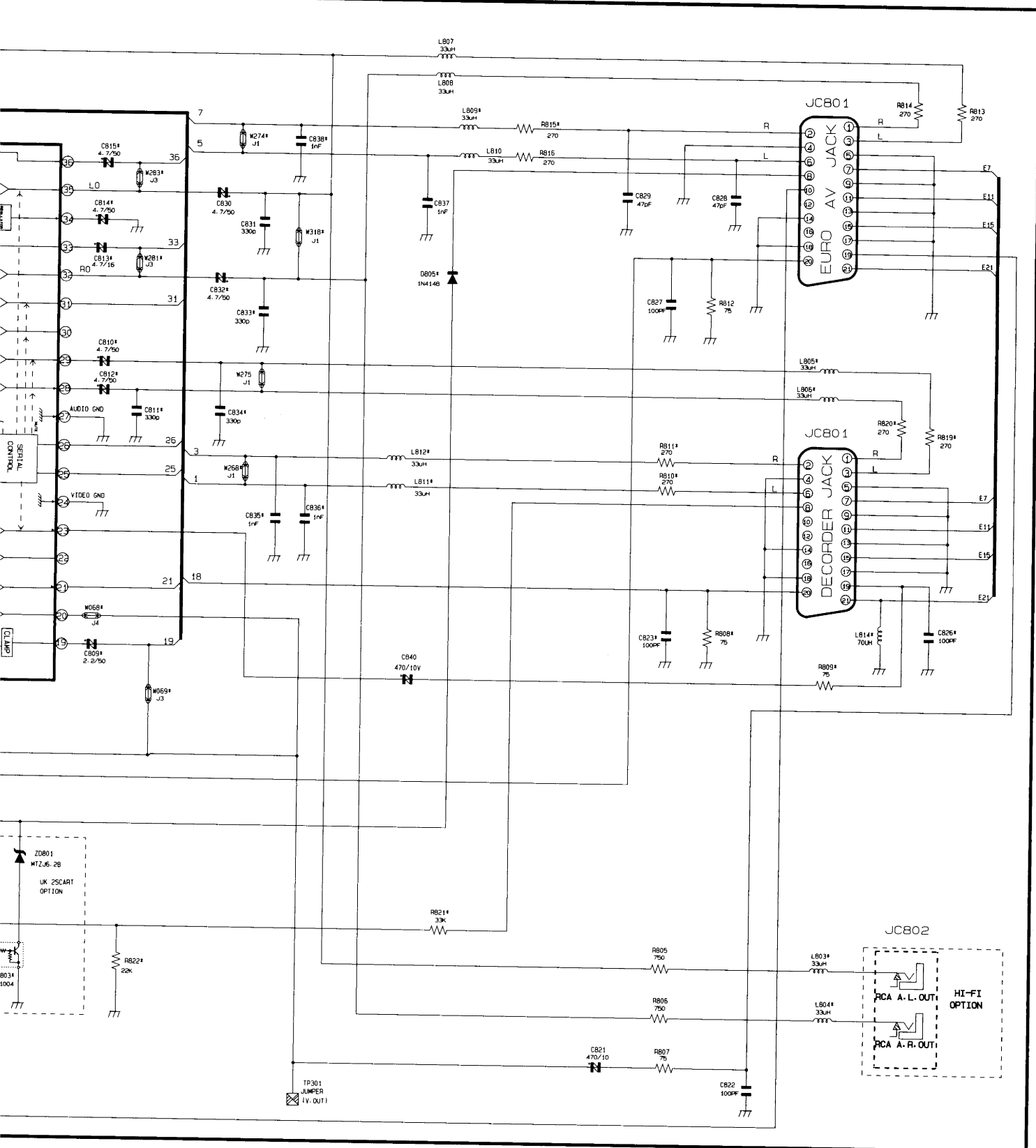




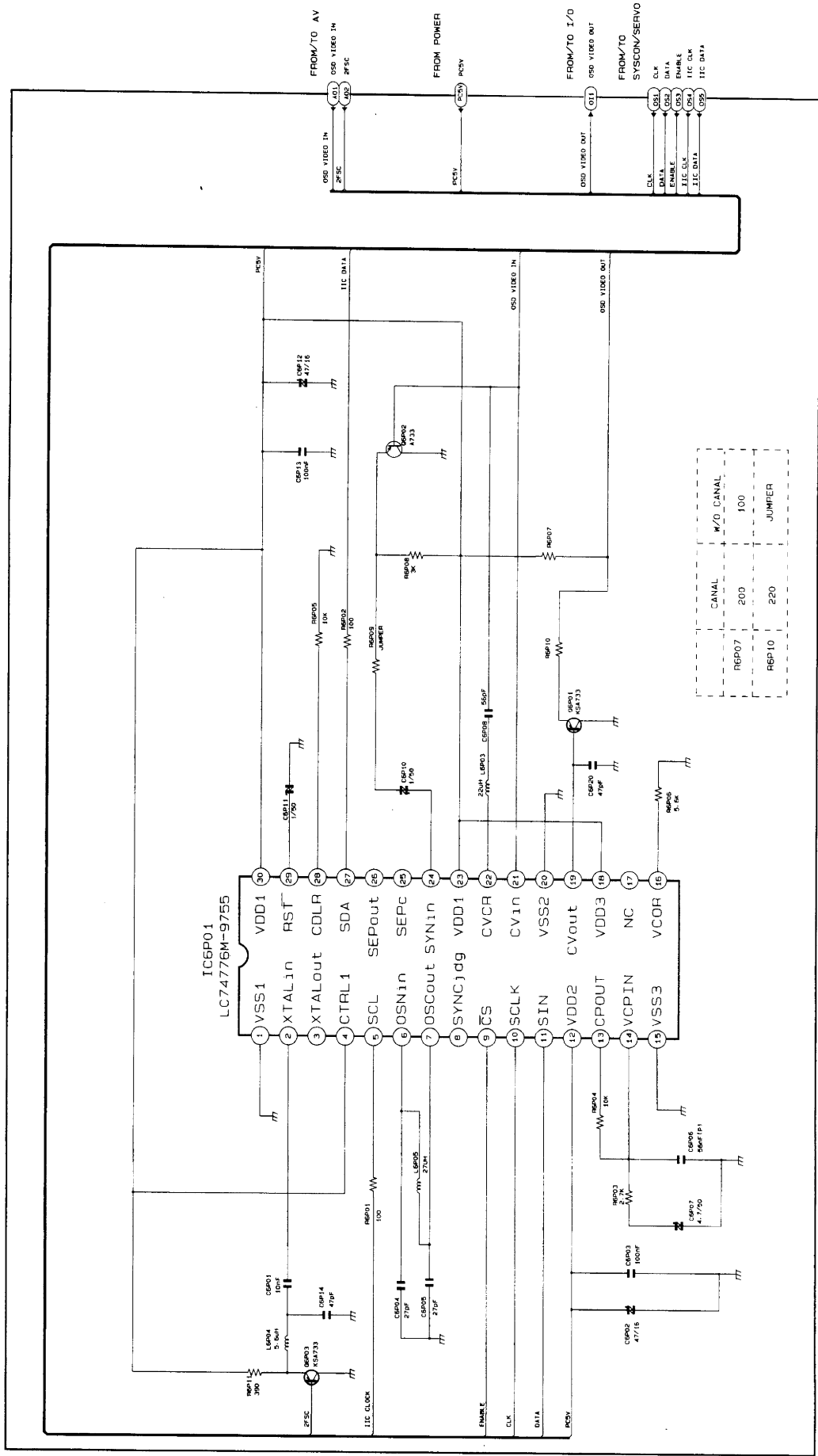


## 10-9 Input-Output



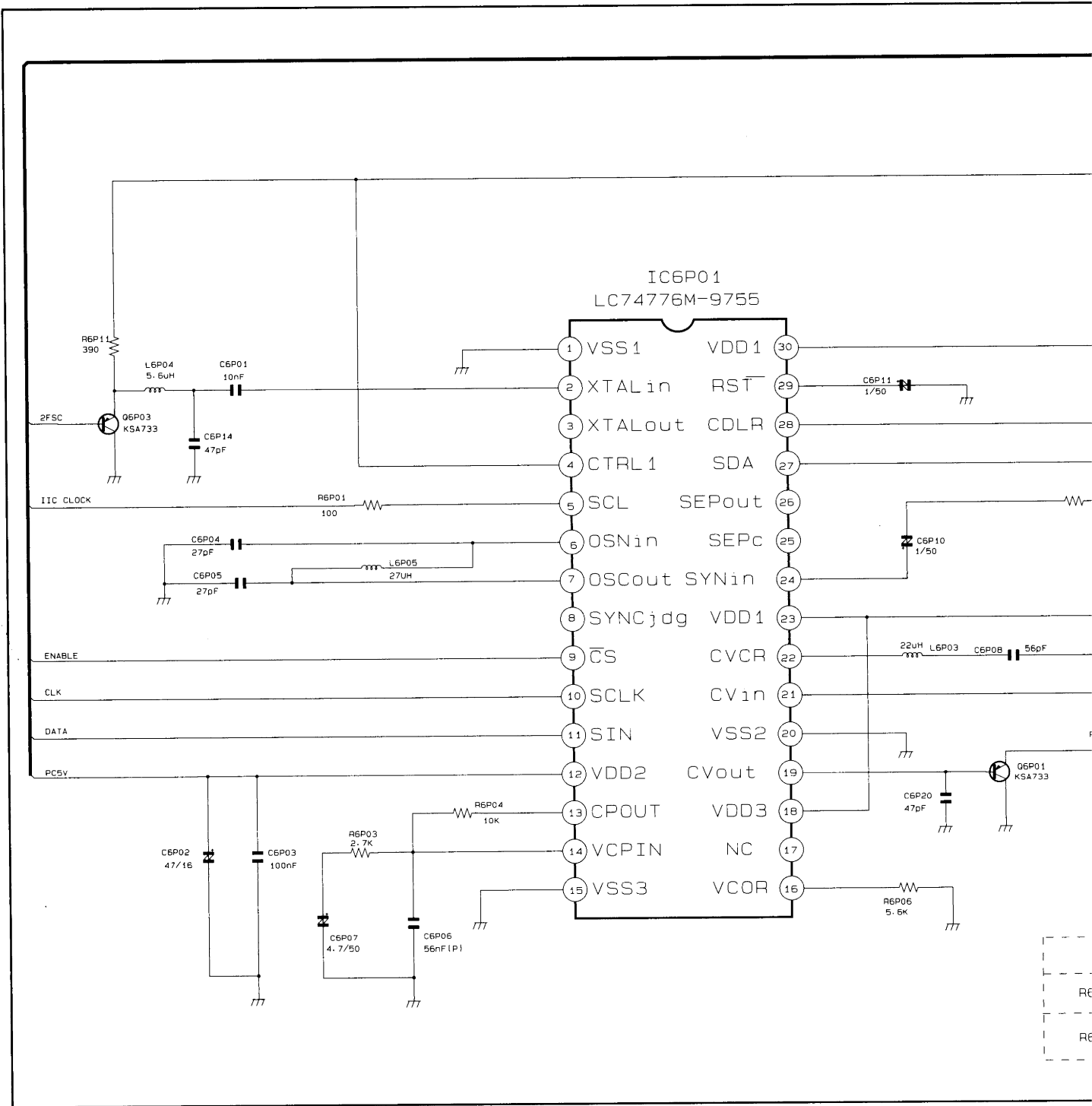


# 10-10 OSD/NPS/PCD

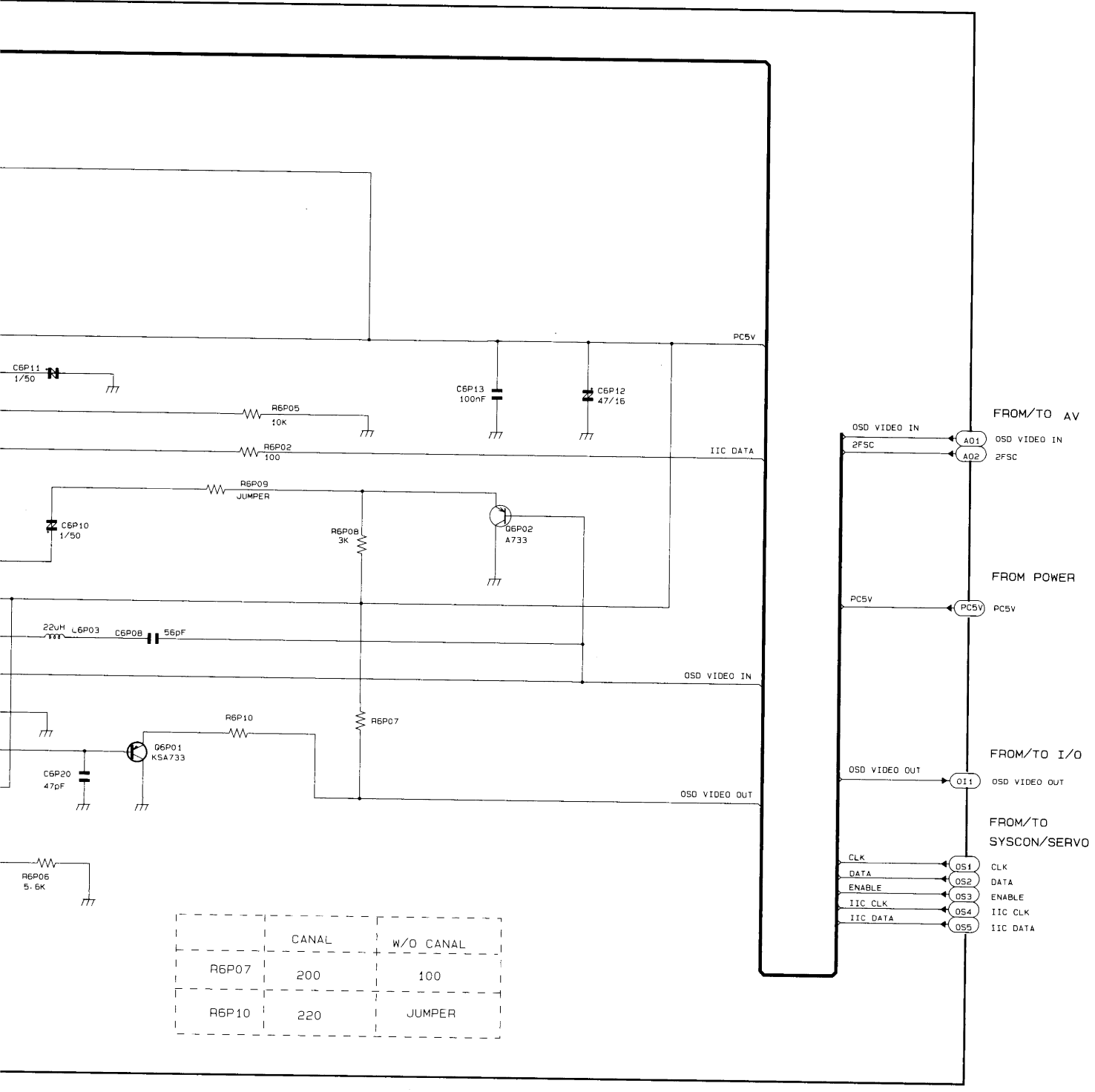


10-10 OSD/VPS/PCD

Application Models ; V-729B/709B/429B/229B/219B/729EG/719EG/429EG/229EG/219EG/209EG/729F

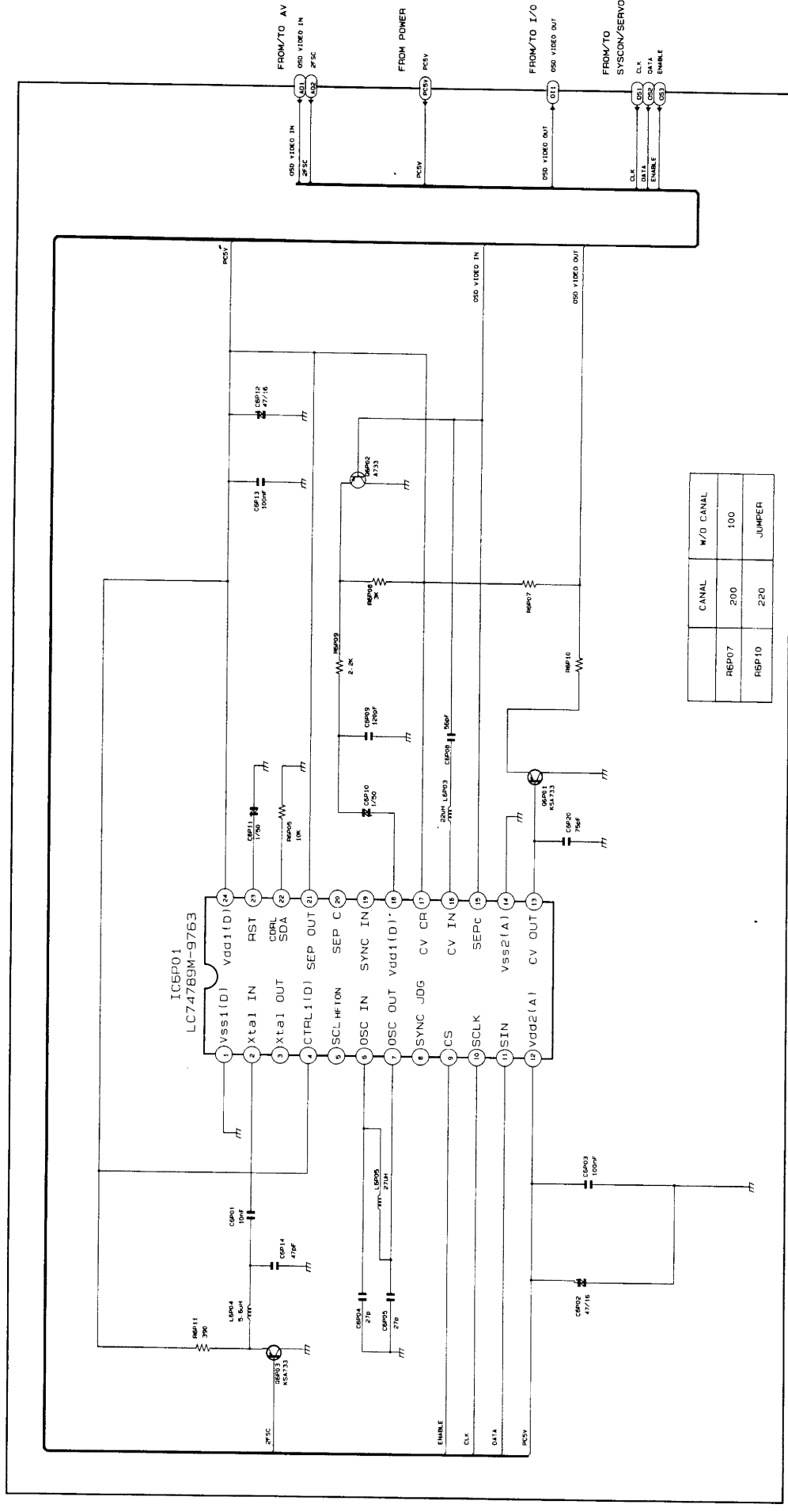


EG/219EG/209EG/729F/429F/229F



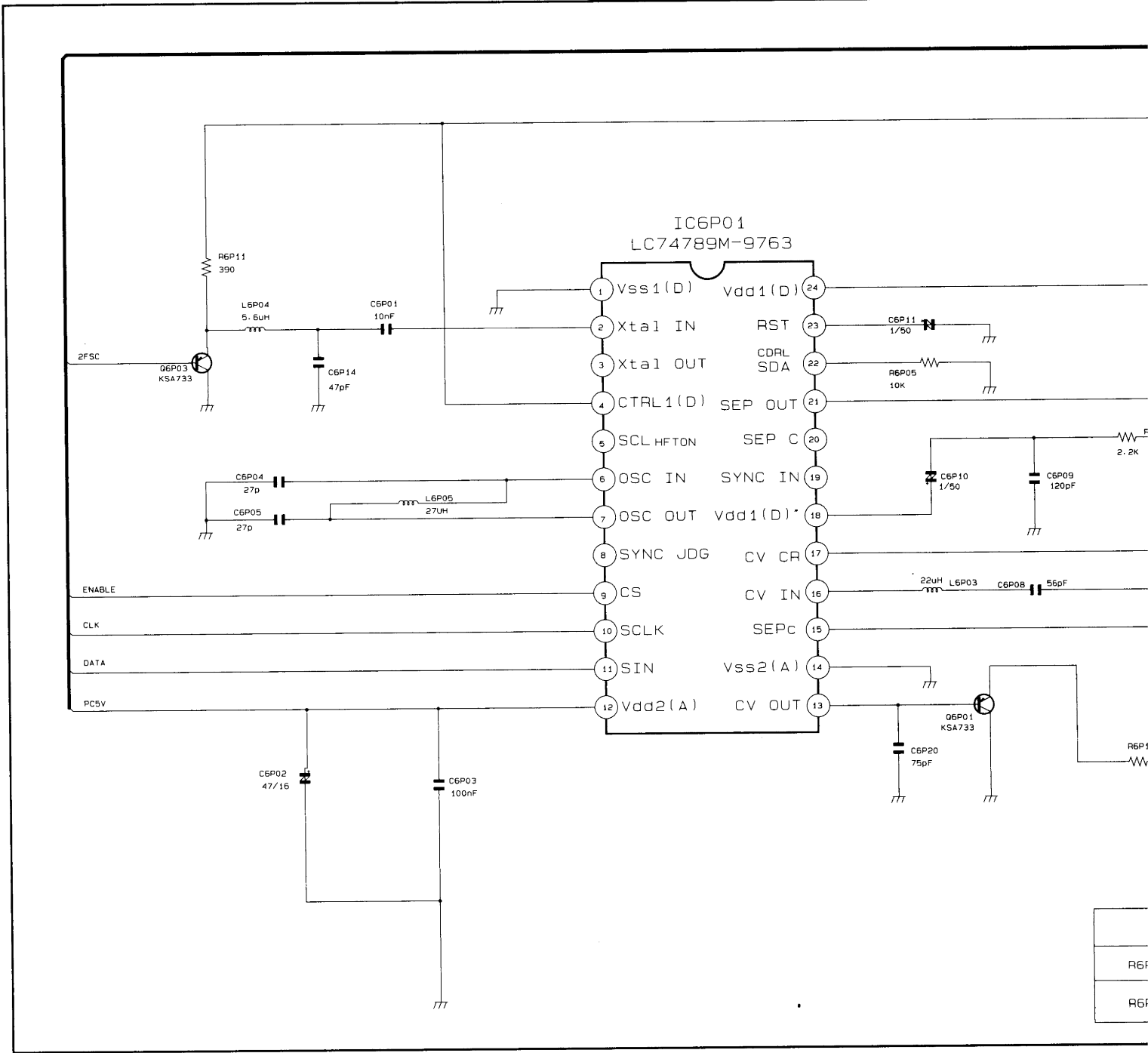


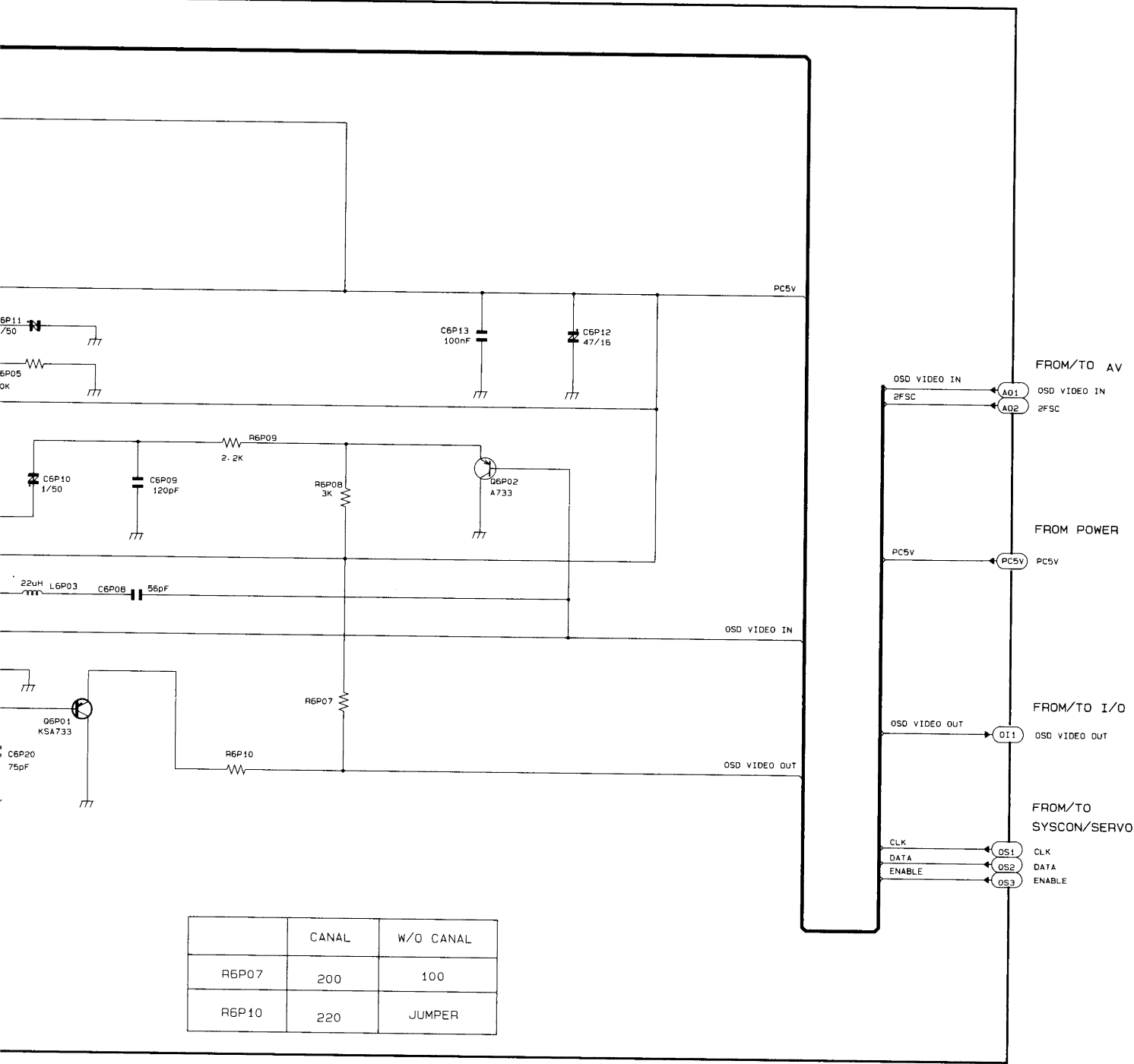
# 10-11 OSD (Without VPS/PDC)



10-11 OSD (Without VPS/PDC)

Application Models ; V-209UK/609F/419F/219F/729W/429W/209W

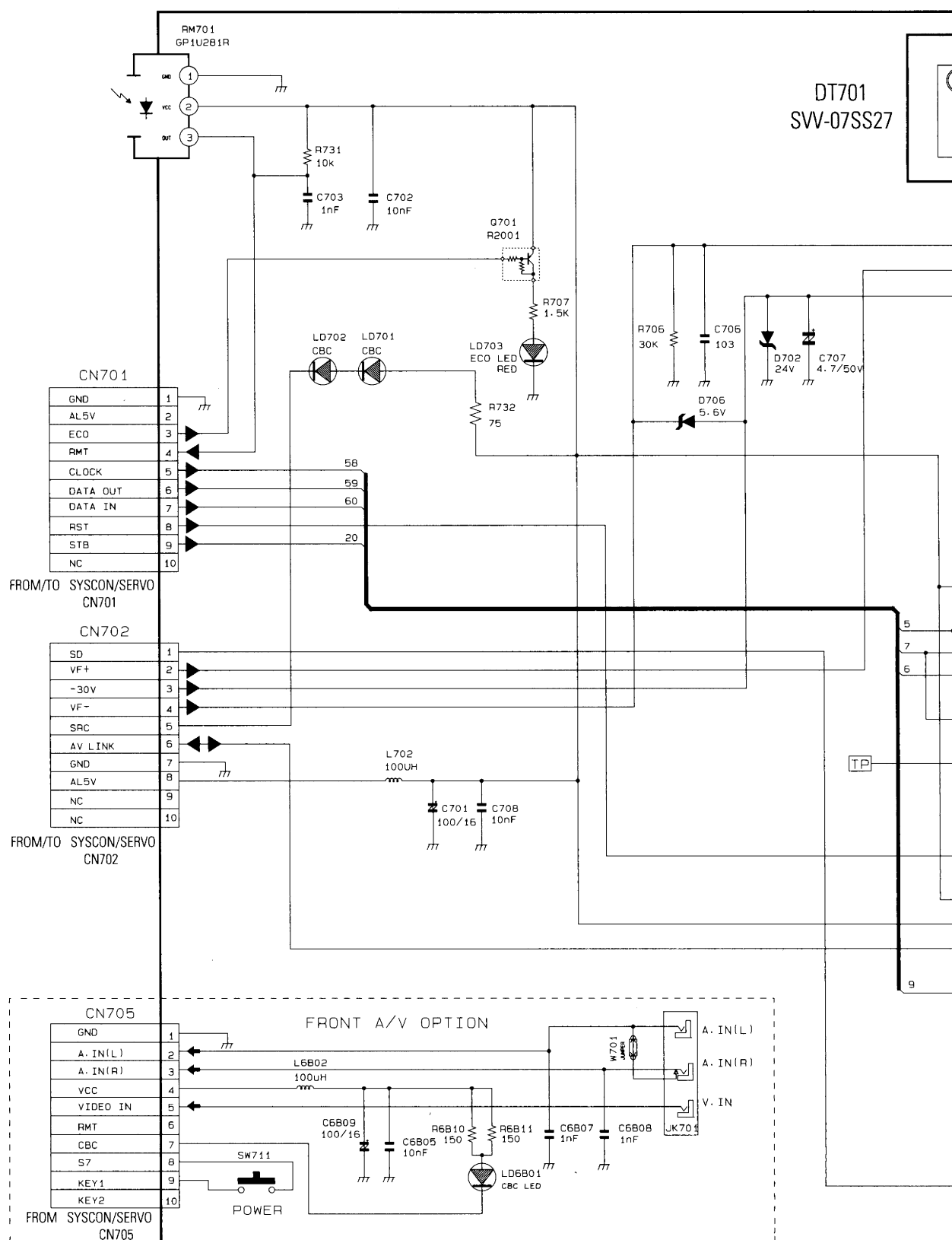




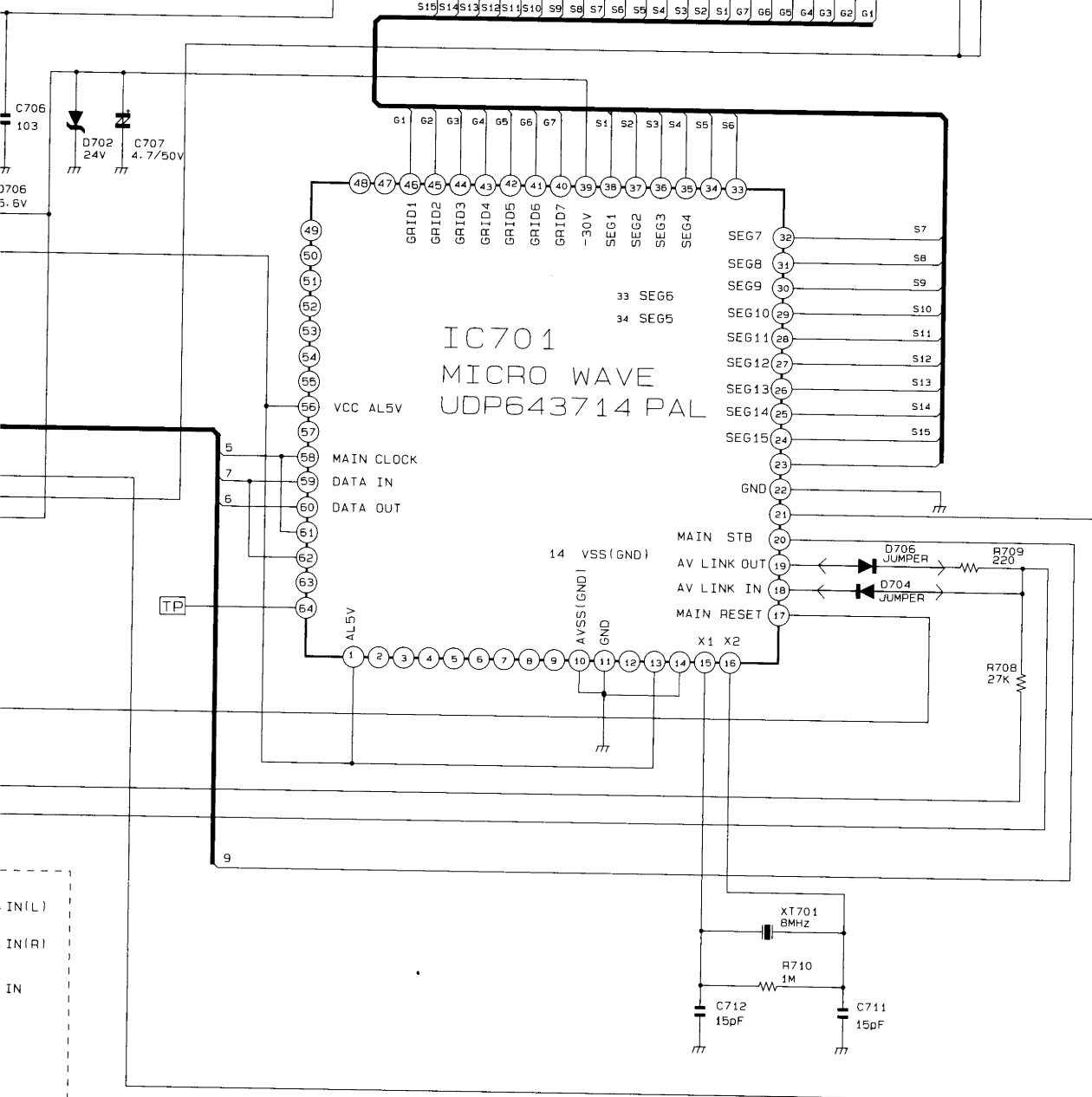
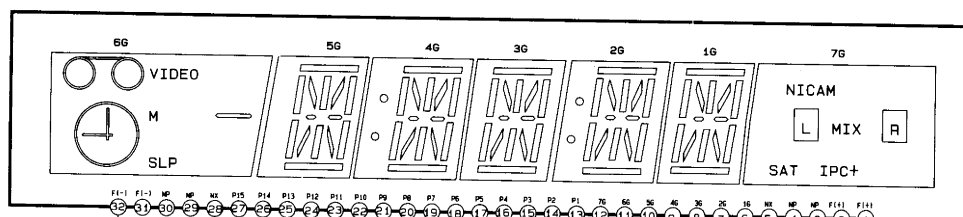


## 10-12 Function-Timer (With AV-Link)

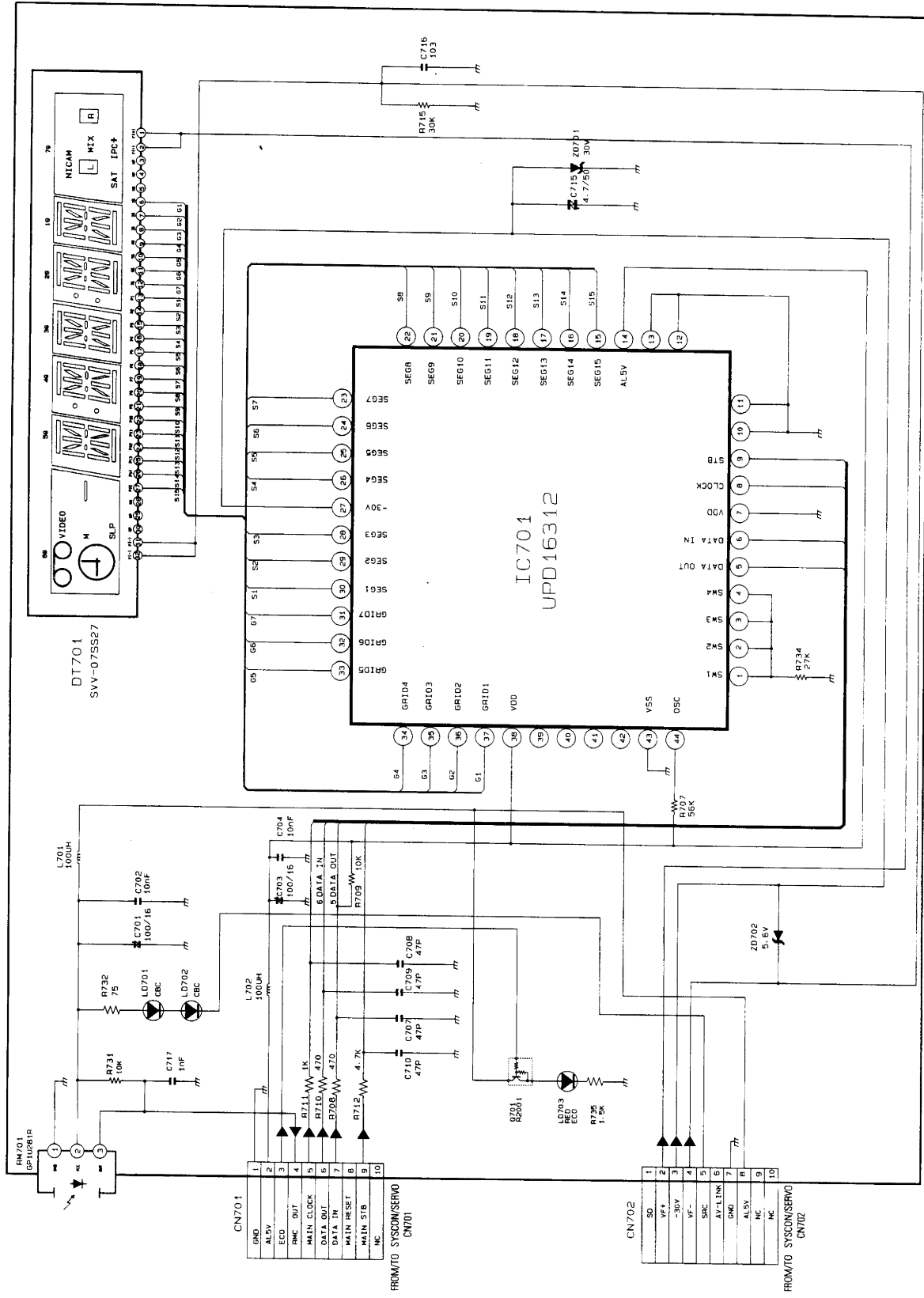
## Application Models ; V-729B/429B/229B/219B/729EG/429EG/729F/429F/229F



DT701  
SV-07SS27

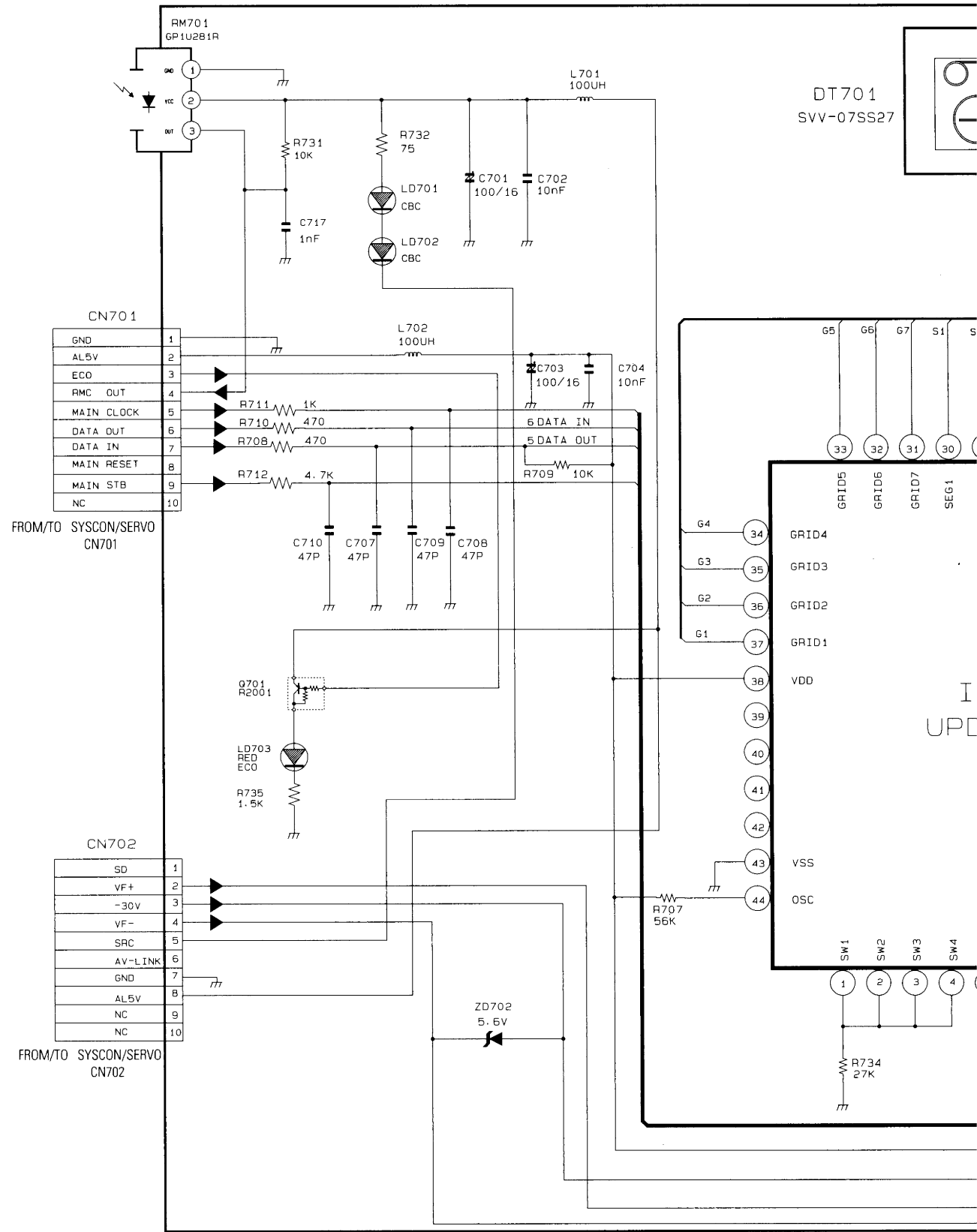


### 10-13 Function-Timer (Without AV-Link)



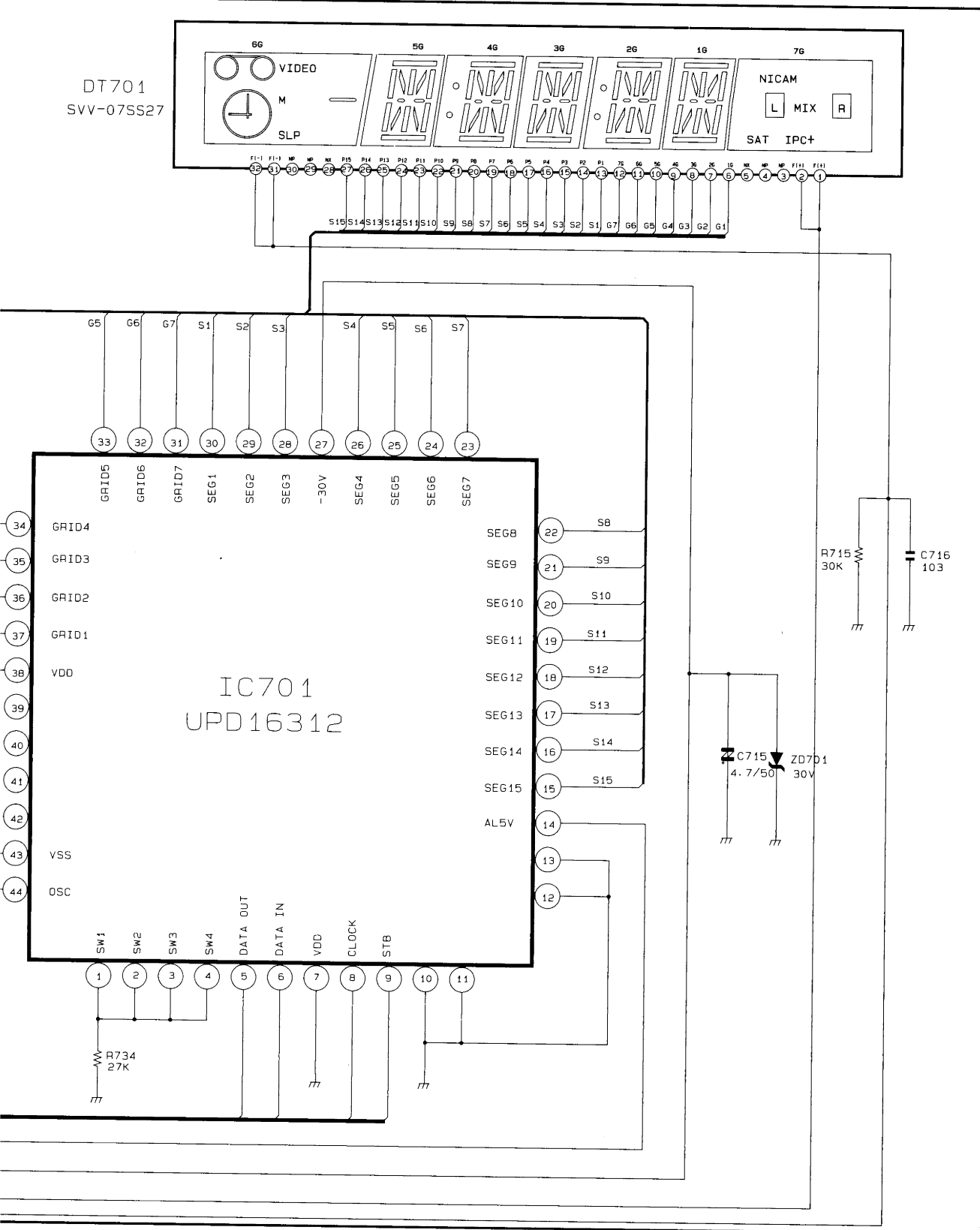
10-13 Function-Timer (Without AV-Link)

Application Models ; V-709B/209UK/719EG/229EG/219EG/209EG/609F/419F/219F/729W/429W/209W

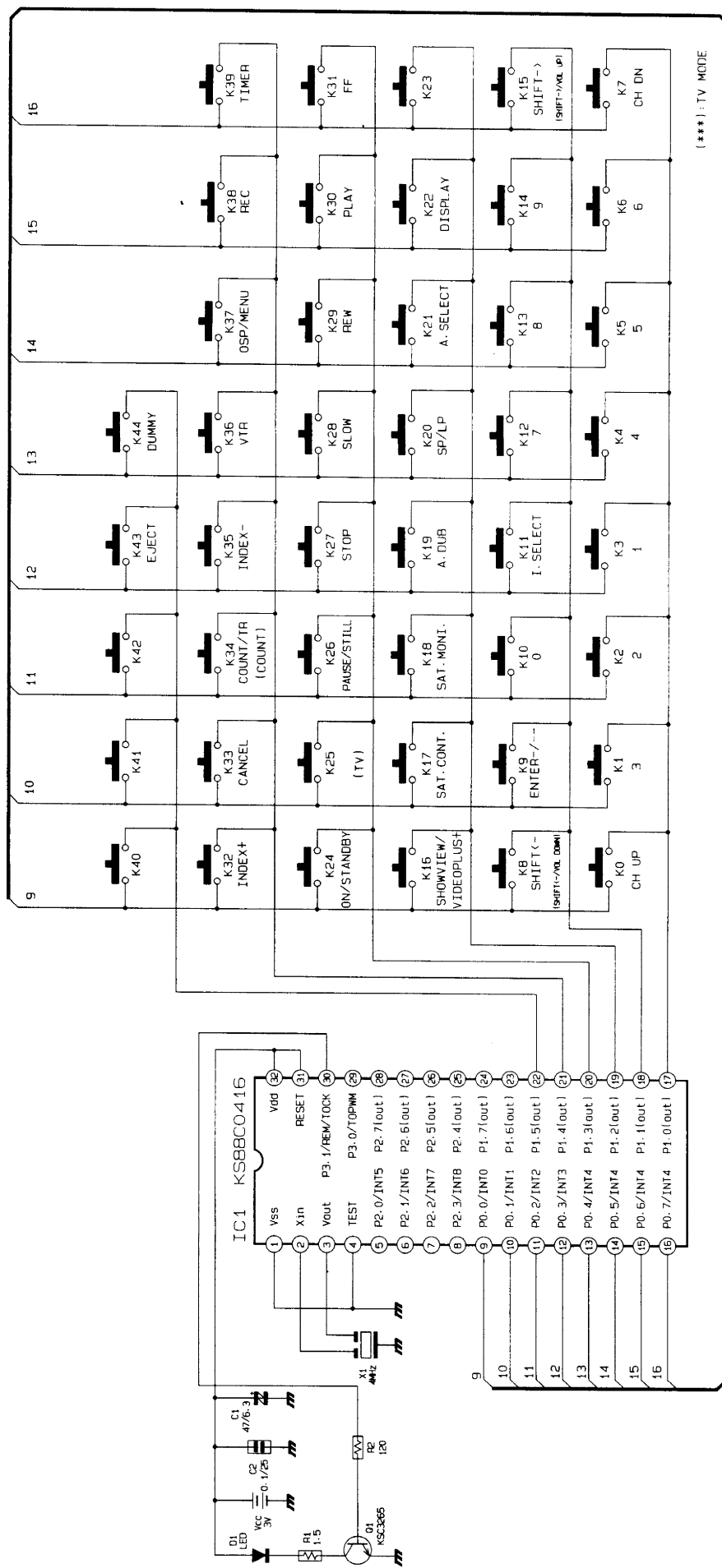




F/729W/429W/209W

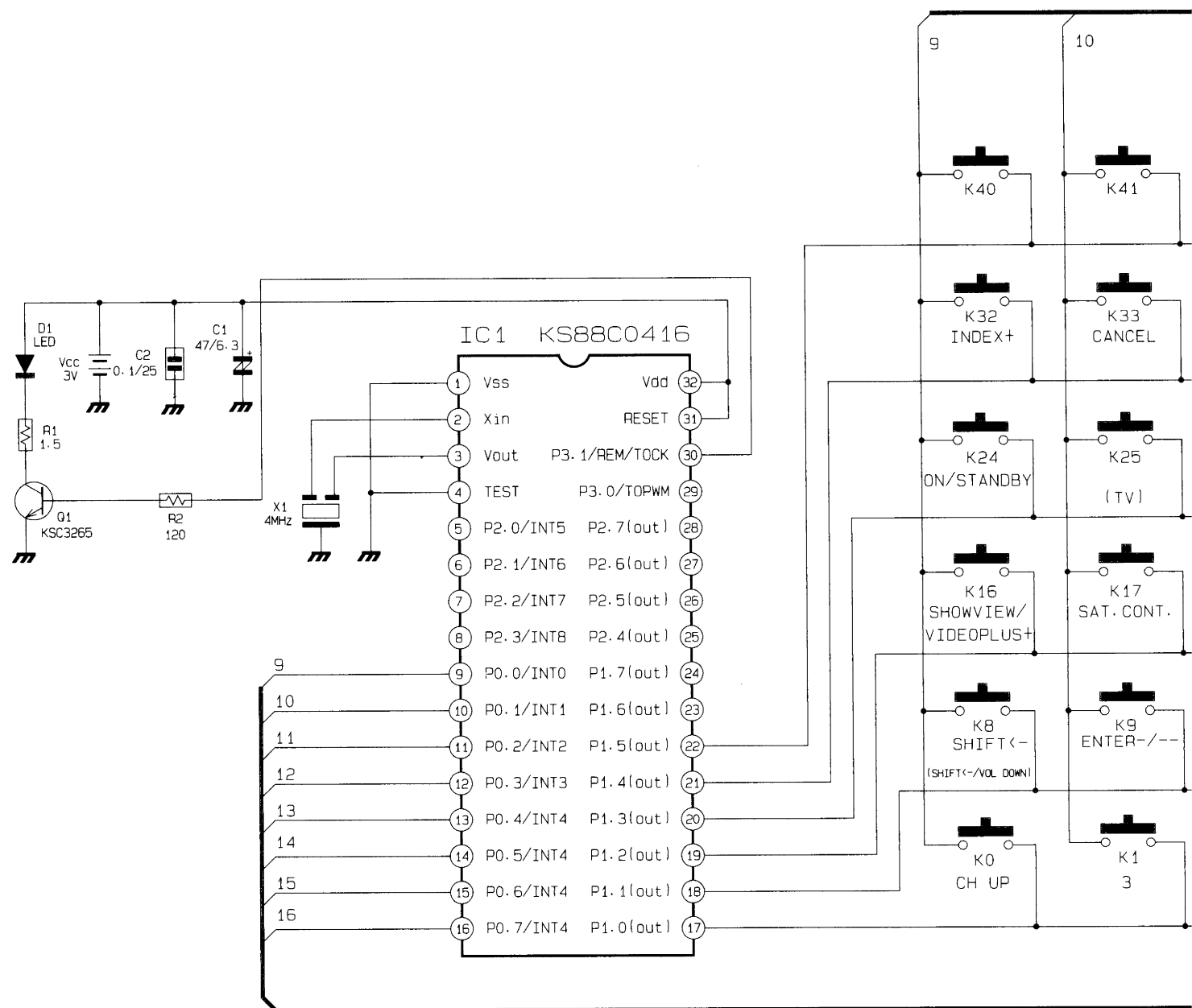


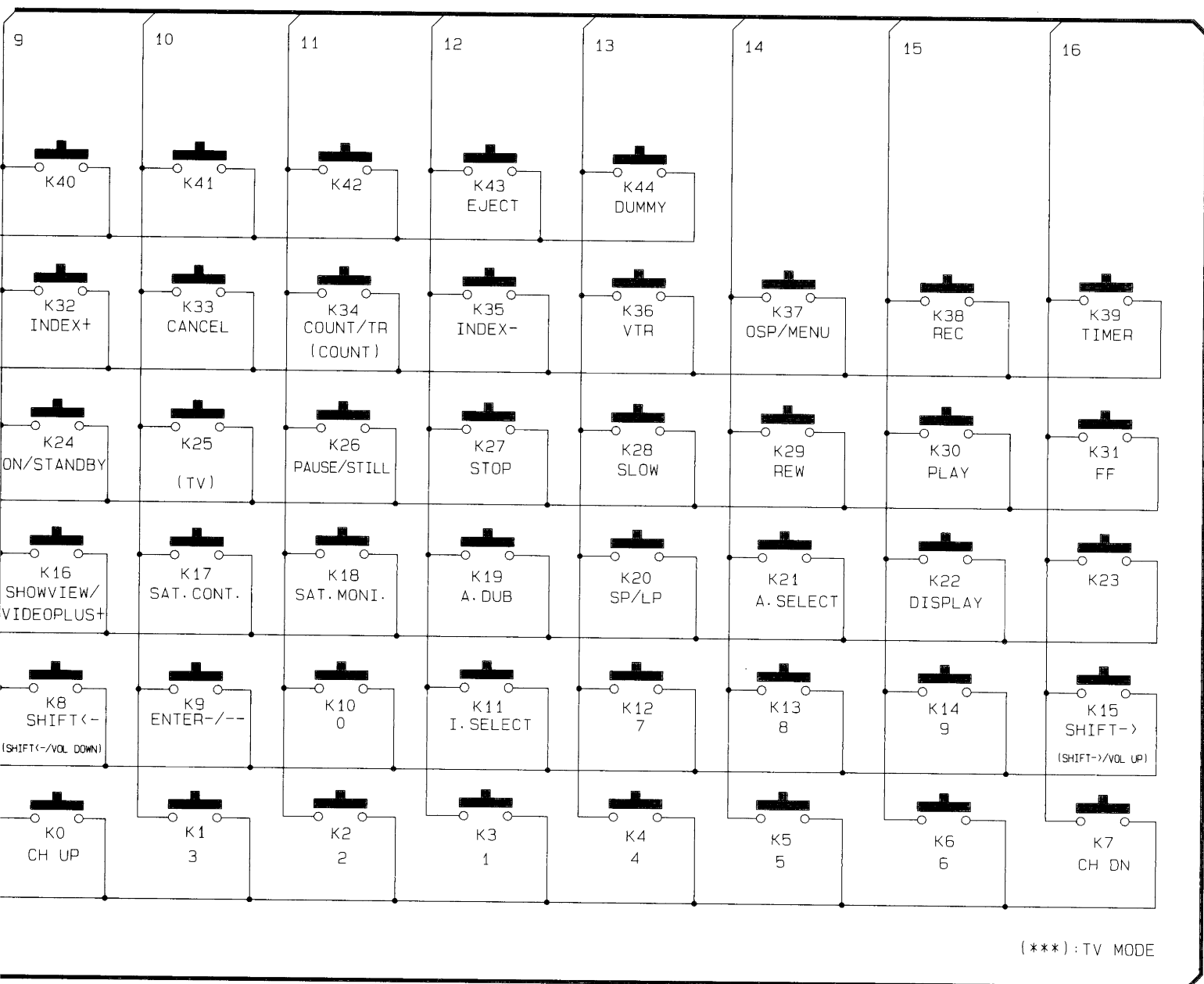
## 10-14 Remote-Control (Multi)



## 10-14 Remote-Control (Multi)

**Application Models : V-729B/429B/229B/729EG/429EG/229EG/429W**

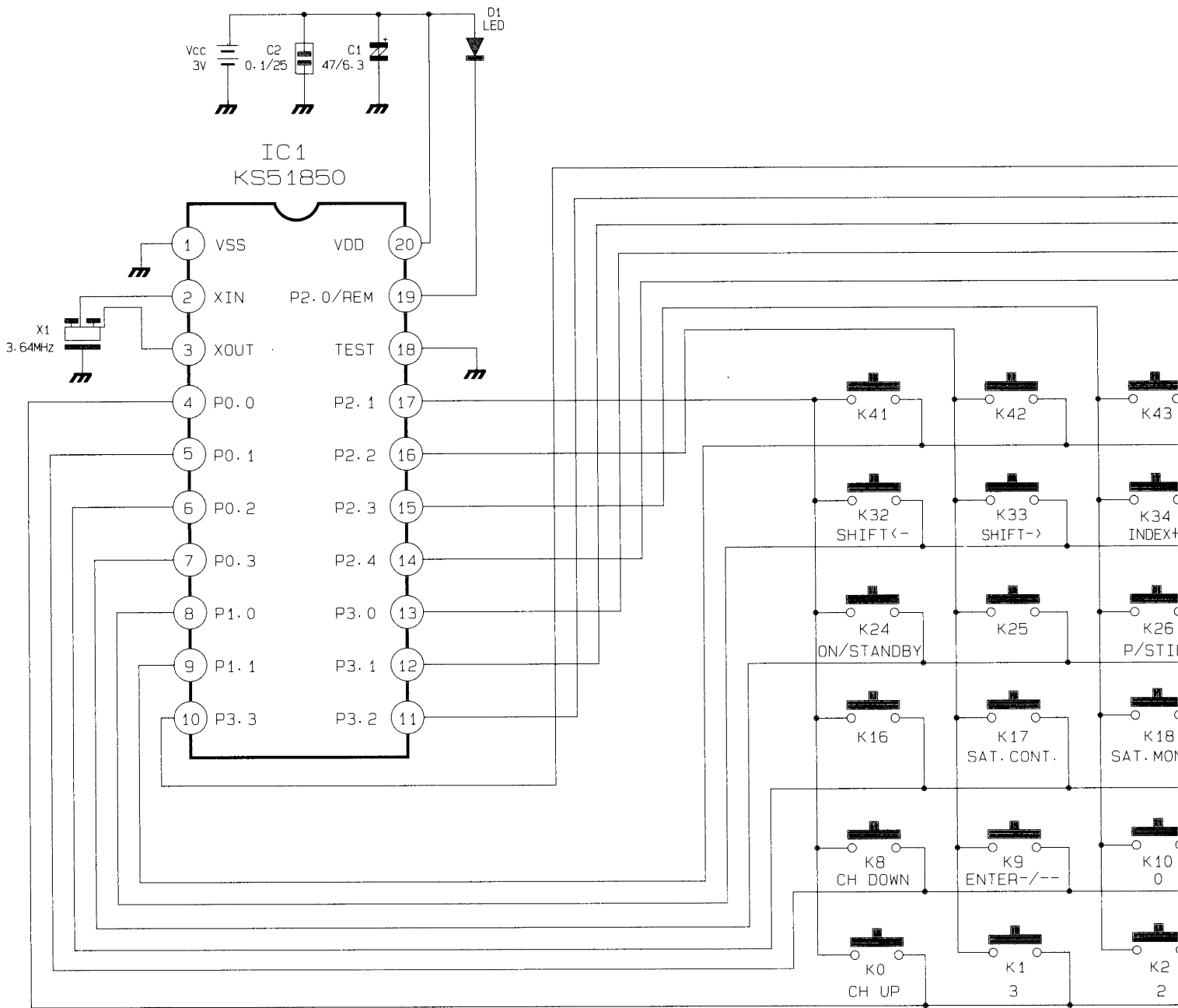






10-15 Remote-Control (VCR Only)

Application Models ; V-709B/219B/209UK/719EG/219EG/209EG/729F/609F/429F/419F/229F/219F/729V



**V419F/229F/219F/729W/209W**
